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Water Resources Data
Colorado
Water Year 1984

Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin

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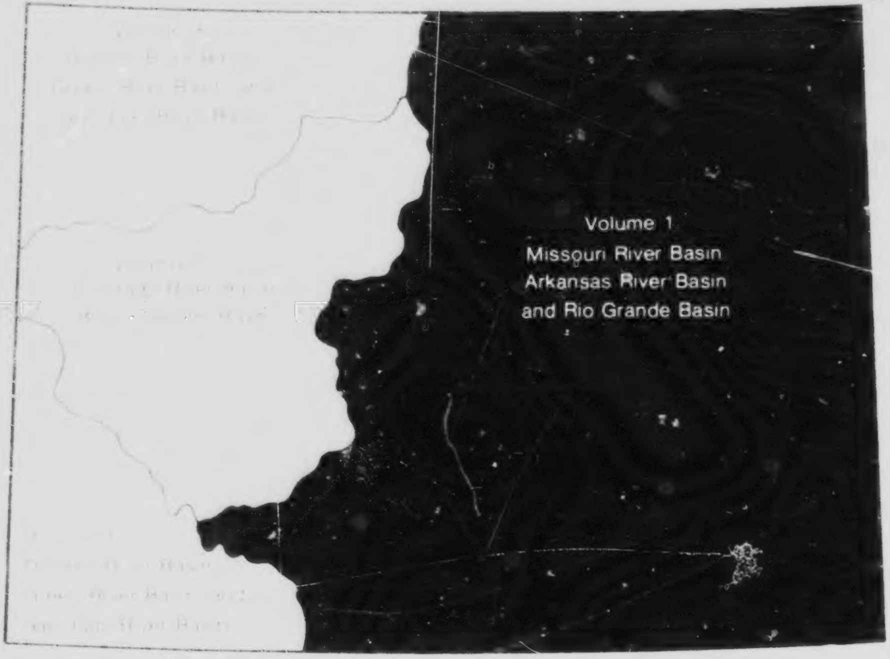
Volume 1
Missouri River Basin
Arkansas River Basin
and Rio Grande Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-84-1
Prepared in cooperation with the State of Colorado
and with other agencies

AVAILABLE

CALENDAR FOR WATER YEAR 1984

1983

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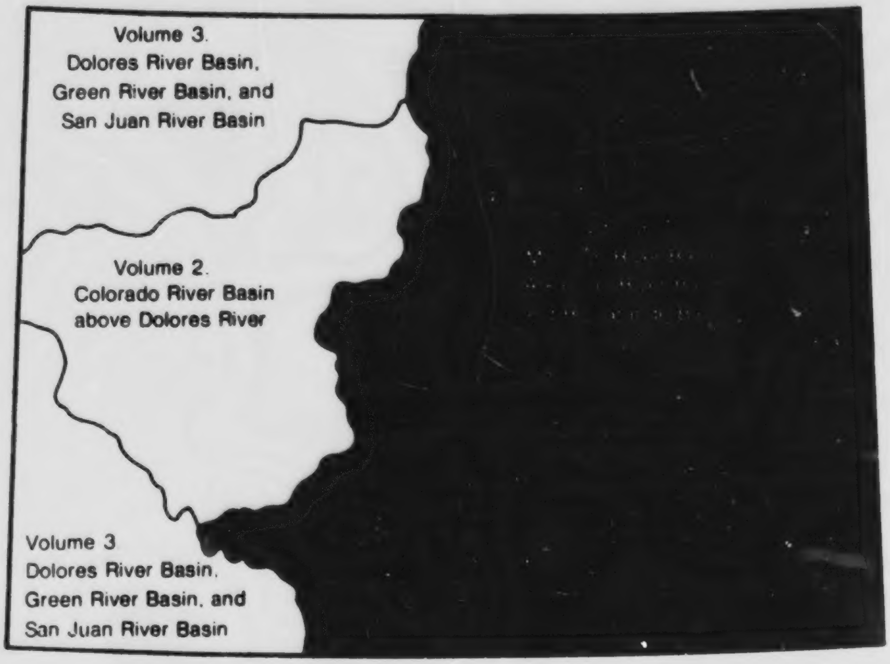
March 3, 1849

1876

Water Resources Data
Colorado
Water Year 1984

Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin

by A.C. Duncan, R.C. Ugland, R.D. Steger, and J.L. Blattner


Volume 3.
Dolores River Basin,
Green River Basin, and
San Juan River Basin
Volume 2.
Colorado River Basin
above Dolores River
Volume 3
Dolores River Basin,
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San Juan River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-84-1
Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Colorado write to:

District Chief, Water Resources Division
U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, Co 80225

1985

PREFACE

This volume of the annual hydrologic data report of Colorado is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Colorado are contained in three volumes:

Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
Volume 2. Colorado River Basin in Colorado, above the Dolores River, and
Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

This report is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Colorado and with other agencies under the general supervision of J. F. Blakey, District Chief, Colorado.

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16. Abstract (Limit: 200 words)

Water-resources data for Colorado for the 1984 water year consist of records of stage, discharge, and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water discharge records for 352 gaging stations, stage and contents of 23 lakes and reservoirs, 4 partial-record low-flow stations, peak flow information for 32 crest-stage partial record stations, and 1 miscellaneous site; water quality for 126 gaging stations and 275 miscellaneous sites; and water levels for 55 observation wells. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. F. Blakey, District Chief. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies.

17. Document Analysis a. Descriptors

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Partial tables: (c) chemical, (b) biological, (m) microbiological,
(s) sediment, (t) temperature)

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WATER RESOURCES DATA FOR COLORADO, 1984

VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS

By A.C. Duncan, R. C. Ugland, R. D. Steger, and J. L. Blattner

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INTRODUCTION

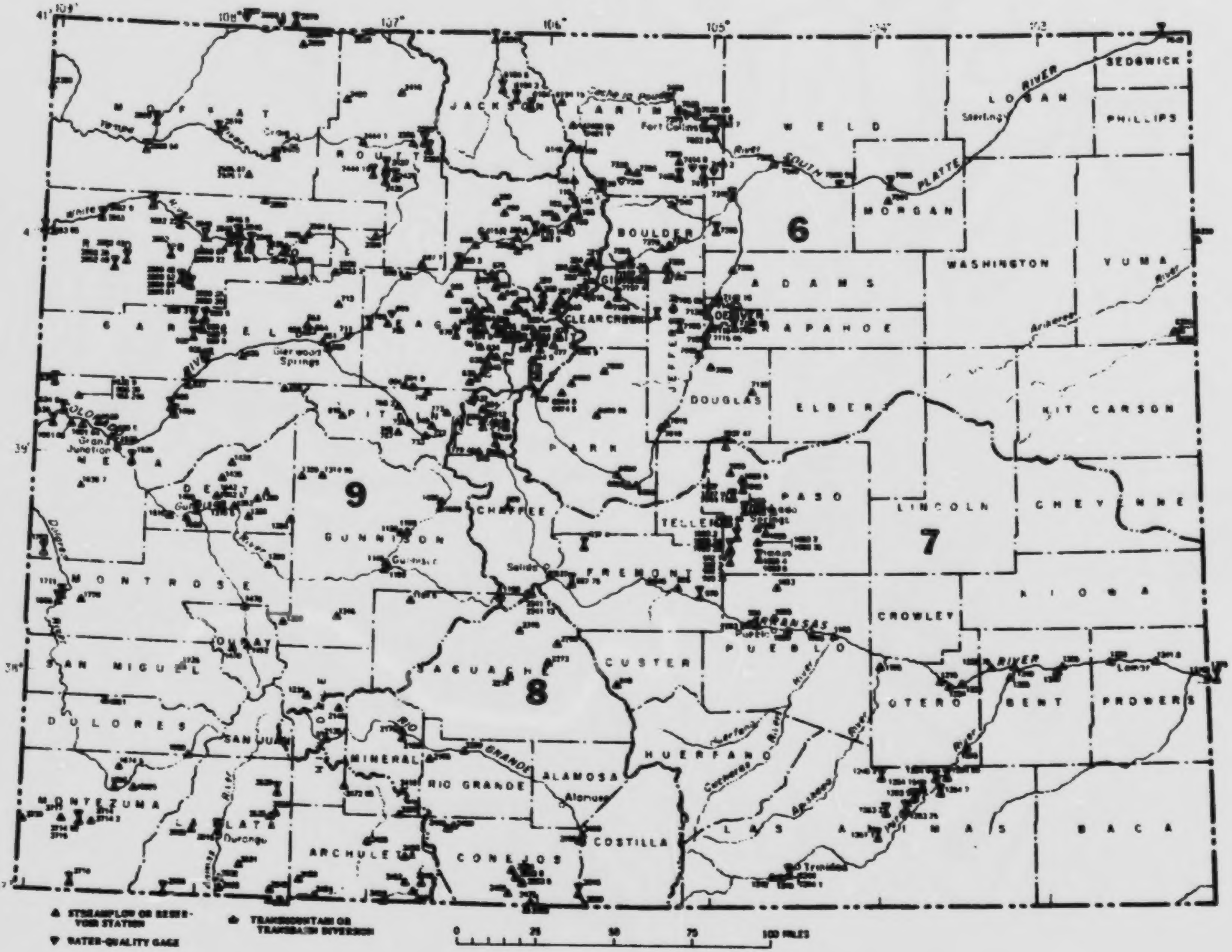
Water-resources data for the 1984 water year for Colorado consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (volumes 1, 2, and 3) contains discharge records for 352 streamflow-gaging stations, stage and contents of 23 lakes and reservoirs, low-flow data for 4 partial-record stations, peak flow information for 32 crest-stage partial-record stations and 1 miscellaneous site; water-quality data for 116 streamflow-gaging stations and 275 miscellaneous sites; and water levels for 55 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data were collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado and represent that part of the National Water Data System.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." These water-supply papers were published in an annual series through September 30, 1960, and then in 5-year compilations for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Eastern Distribution Branch Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data on streamflow, water quality, and ground water are published in official survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-84-1." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (303) 236-4882.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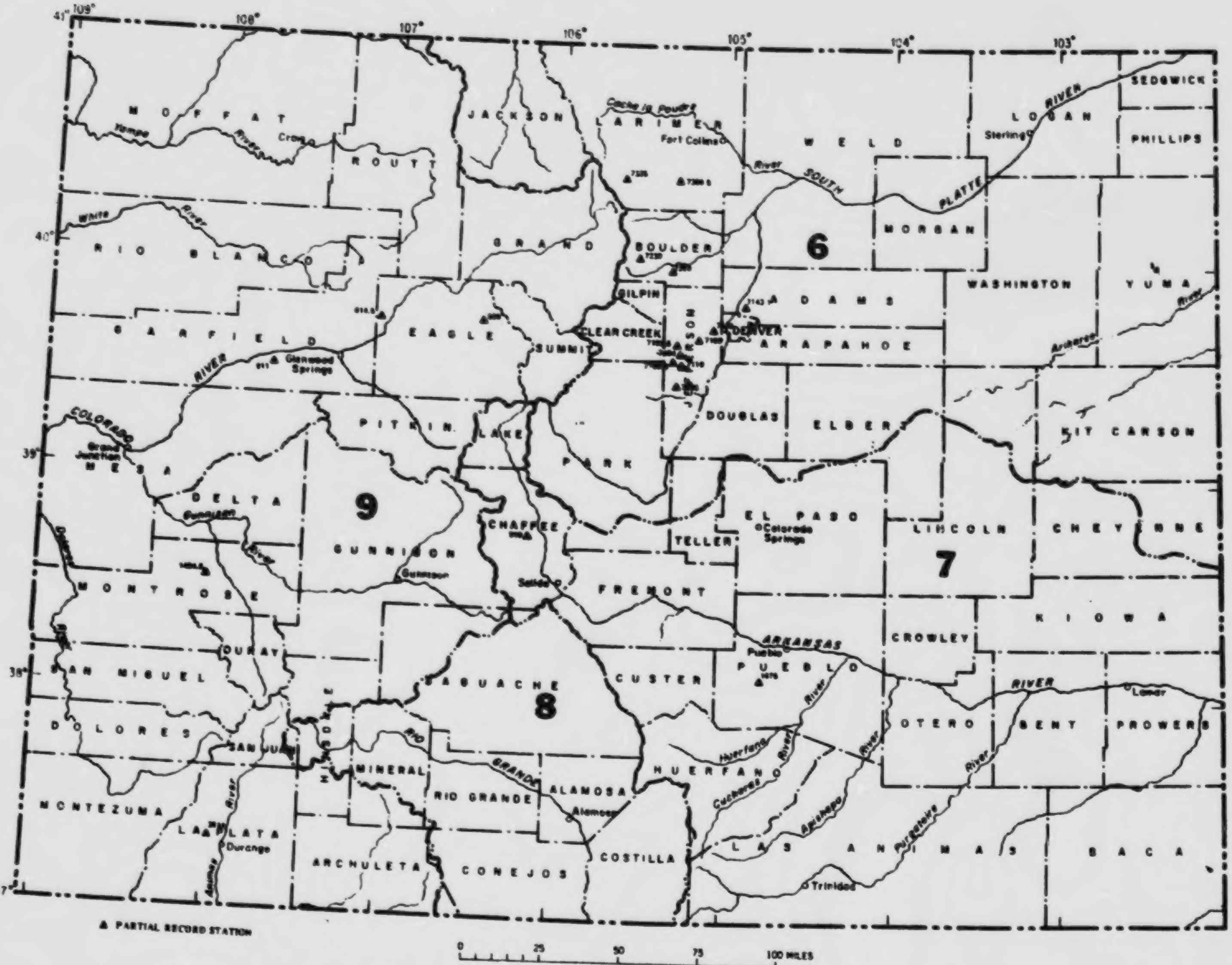
Colorado Springs
Pueblo
Lamar
Alamosa
Durango
Trinidad
Yampa River
White River
Colorado River
Gunnison River
South Platte River
Arkansas River
Rio Grande
Arikaree River
Republican River
Purgatoire River
Huerfano River
Dolores River
Animas River
STREAMFLOW OR RESERVOIR STATION
TRANSMOUNTAIN OR TRANSBASIN DIVERSION
WATER-QUALITY GAGE
0
25
50
75
100 MILES

Figure 1.—Map showing locations of lakes and stream-gaging stations and water-quality stations in Colorado.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GILPIN
ADAMS
GARFIELD
EAGLE
SUMMIT
CLEAR CREEK
DENVER
ARAPAHOE
JEFFERSON
PITKIN
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DOUGLAS
ELBERT
KIT CARSON
MESA
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MONTROSE
FREMONT
KIOWA
OURAY
CROWLEY
SAN MIGUEL
SAGUACHE
CUSTER
PUEBLO
DOLORES
SAN JUAN
HINSDALE
OTERO
BENT
PROWERS
MINERAL
RIO GRANDE
ALAMOSA
HUERFANO
MONTEZUMA
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ARCHULETA
CONEJOS
COSTILLA
LAS ANIMAS
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Yampa
River
White
River
COLORADO
RIVER
SOUTH
PLATTE
RIVER
Arikaree
ARKANSAS
RIVER
RIO
GRANDE
Huerfano
Cucharas
Apishapa
Purgatoire
Animas
Dolores
Gunnison
Craig
Fort Collins
Sterling
Glenwood Springs
Grand Junction
Gunnison
Salida
Colorado Springs
Pueblo
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▲ PARTIAL RECORD STATION
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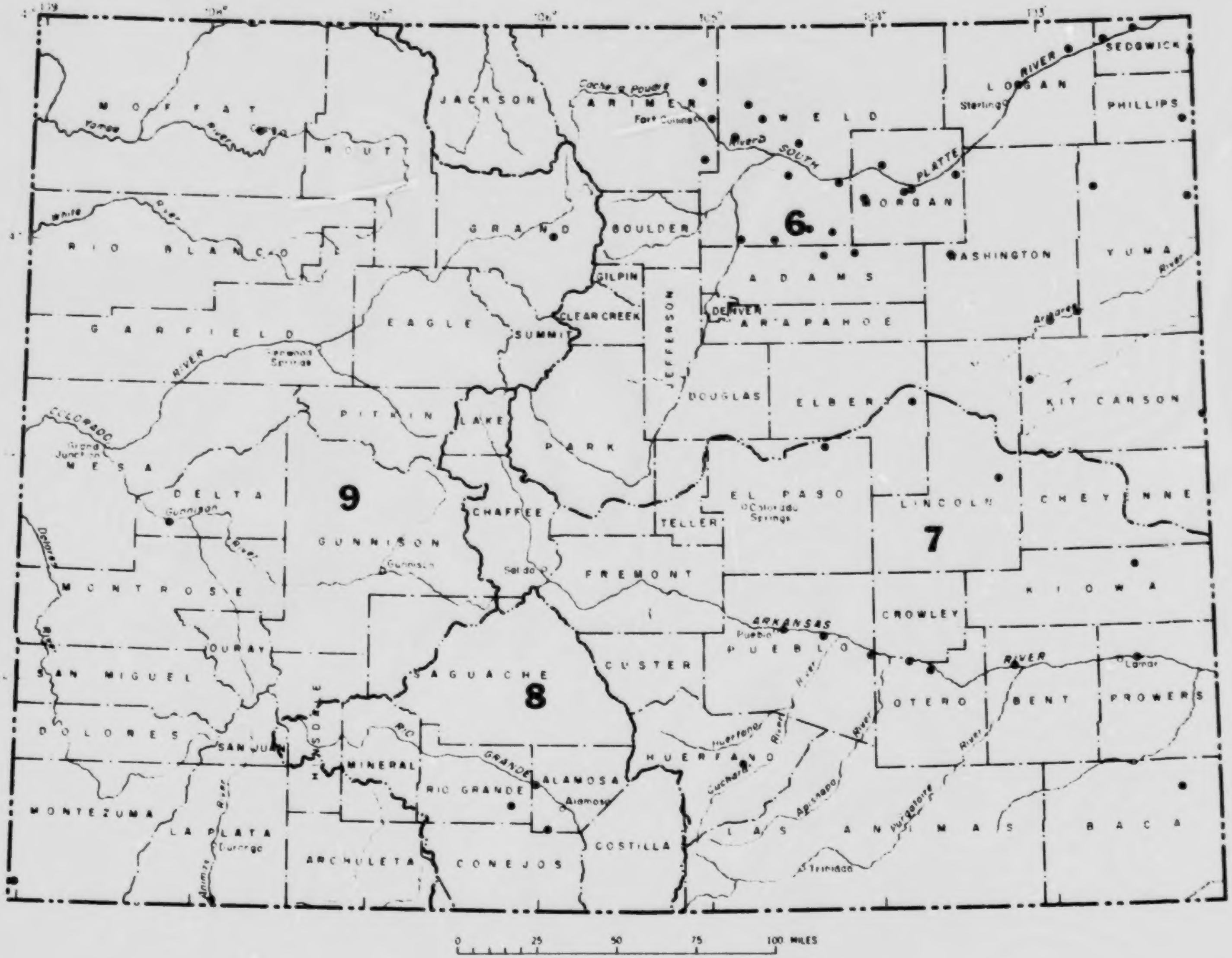
Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.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Dolores
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FREMONT
KIOWA
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CROWLEY
ARKANSAS
Pueblo
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Lamar
PROWERS
DOLORES
SAN JUAN
HINSDALE
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Alamosa
RIO GRANDE
HUERFANO
Huerfano
Cucharas
River
Apishapa
Purgatoire
River
MONTEZUMA
LA PLATA
Durango
Animas
River
ARCHULETA
CONEJOS
COSTILLA
LAS ANIMAS
Trinidad
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100 MILES

Figure 3.--Location of observation wells in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Arkansas River Compact Administration, L. Idler, Secretary.
City and County of Denver, Board of Water Commissioners, J. A. Yelenick, President.
City of Aspen, Wayne Chapman, City Manager.
City of Aurora, C. A. Wemlinger, Director of Utilities.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Englewood, Dr. W. F. Owen, Director, Wastewater Treatment Plant.
City of Fruita, W. G. Downer, Mayor.
City of Glendale, Robert Taylor.
City of Steamboat Springs, J. Zimmerman.
Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Custer County, Leonard Reis, Chairman.
Denver Regional Council of Governments, Robert D. Farley, Executive Director.
Eagle County Board of Commissioners, D. E. Mott, Commissioner.
Evergreen Metropolitan District, G. O. Schulte, General Manager.
Fountain Valley Authority, Ed Bailey, Secretary.
Garfield County, Rodger Ludwig.
Grand County, R. Howard Moody, County Commissioner.
Larimer-Weld Regional Council of Governments, L. L. Pearson, Executive Director.
Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
Pitkin County Board of County Commissioners, C. Stewart, County Manager.
Pueblo Civil Defense, Betty Jo Hopper, Director.
Purgatoire River Water Conservancy District, C. Latuda, President.
Rio Blanco County Board of County Commissioners, A. J. Jones.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Southwestern Water Conservation District, Edward Searle, Manager.
Town of Breckenridge, J. A. Humphreys, Acting Town Manager.
Town of Castle Rock, Tom Gallier, Director of Utilities.
Uncompahgre Valley Water Users Association, James Herbit, Manager.
Upper Yampa Water Conservancy District, J. Fetcher.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

Financial assistance was also provided by the U.S. Army, Corps of Engineers, U.S. Army; U.S. Air Force; Bureau of Indian Affairs, Bureau of Land Management, Bureau of Mines, Bureau of Reclamation, the National Park Service, and the U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

Precipitation

Precipitation during the water year was, in general, greater than normal throughout the Missouri River, Arkansas, and Rio Grande basins. This represents a continuation of the high precipitation pattern from the preceding water year. The snowpack in the mountains varied from 114 to 207 percent of normal. Precipitation data from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for four major basins in Colorado are shown in table 1.

Table 1.--Precipitation during 1984 and departures from normal precipitation, in inches

Drainage basin	October--March		April--September		Water year	
	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure
South Platte River-	5.92	+1.74	11.88	+1.05	17.80	+2.79
Kansas River-------	4.92	+1.61	11.19	-0.77	16.11	+0.01
Arkansas River-----	5.15	+1.16	9.76	-0.51	14.91	+0.65
Rio Grande---------	5.51	+0.83	8.41	+1.14	13.92	+1.97

Streamflow

Streamflow in the three major river basins, Platte River, Arkansas River, and the Rio Grande, was greater than normal throughout the entire water year. Monthly and annual mean discharges for the 1984 water year are compared with the median monthly and mean discharges for the 1951-80 water years as shown in figure 4. The monthly mean discharge for 1984 water year at station 06710500, Bear Creek at Morrison, ranged from 123 percent of normal in June to 392 percent of normal in September. The 1984 annual mean discharge was 221 percent of normal as compared to 296 percent of normal for the 1983 water year. The monthly mean discharge for 1984 water year at station 07094500, Arkansas River at Parkdale, varied from 101 percent of normal in November to 285 percent of normal in May. The 1984 annual mean discharge was 166 percent of normal as compared to 160 percent of normal for the 1983 water year. At station 08220000, Rio Grande near Del Norte, monthly mean discharge for 1984 water year varied from 118 percent of normal in January to 378 percent of normal in July. The 1984 annual mean was 136 percent of normal as compared to 129 percent of normal for the 1983 water year.

Year-end reservoir storage increased to 611,800 acre-feet in the Colorado-Big Thompson Project and to 145,000 acre-feet in John Martin Reservoir. In general, storage in most other reservoirs increased during the water year.

Table 2.--Summary of flood stage and discharge at gaging stations where new peak discharges for the period of record occurred during the 1984 water year

(mi², square mile; ft, feet; ft³/s, cubic foot per second)

				Maximum previously known			Maximum during 1984 Water year		
Station number	Station name	Drainage area (mi²)	Period of record	Date	Gage height (ft)	Discharge (ft³/s)	Date	Gage height (ft)	Discharge (ft³/s)
06614800	Michigan River near Cameron Pass---	1.53	1973-84	7-07-84	3.30	53	6-30	3.28	54
06698000	Jefferson Creek near Jefferson------	11.8	1978-84	6-25-83	1.61	55	7-25	1.89	76
07083000	Halfmoon Creek near Malta----------	23.6	1946-84	6-30-57	3.48	450	6-30	3.77	615
07093775	Badger Creek, Lower station near Howard-	211	1980-84	8-14-83	7.75	1,950	7-28	8.05	2,470
07134180	Arkansas River near Granada--------	23,707	1980-84	6-05-82	9.27	1,170	7-17	9.28	1,480

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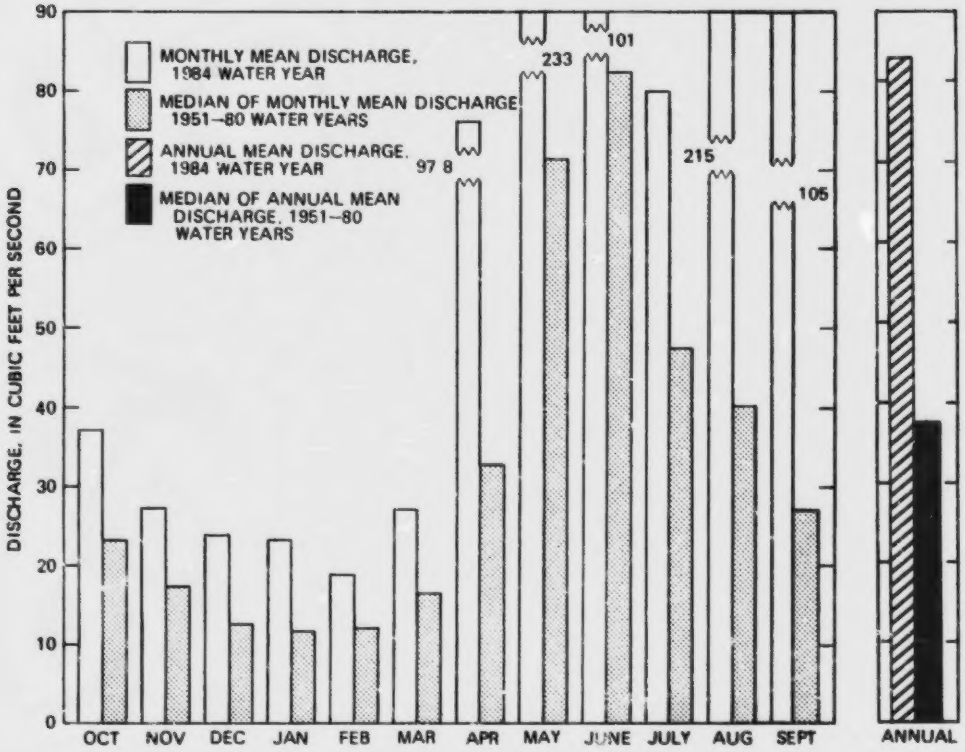
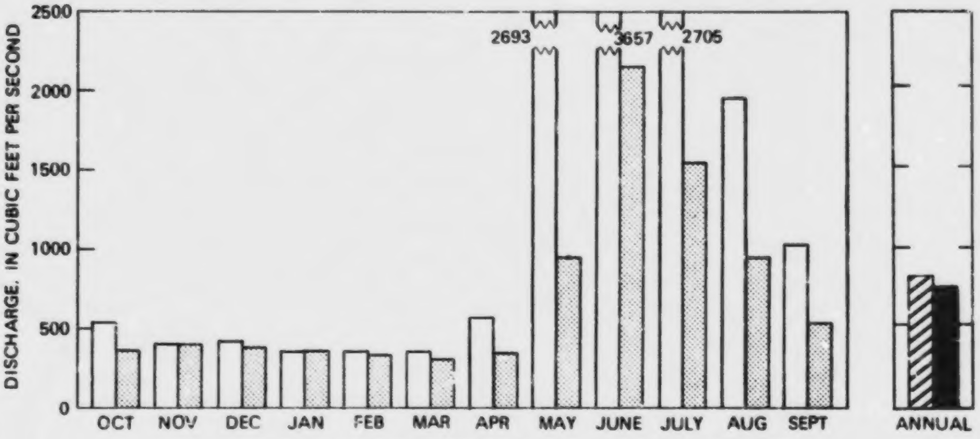
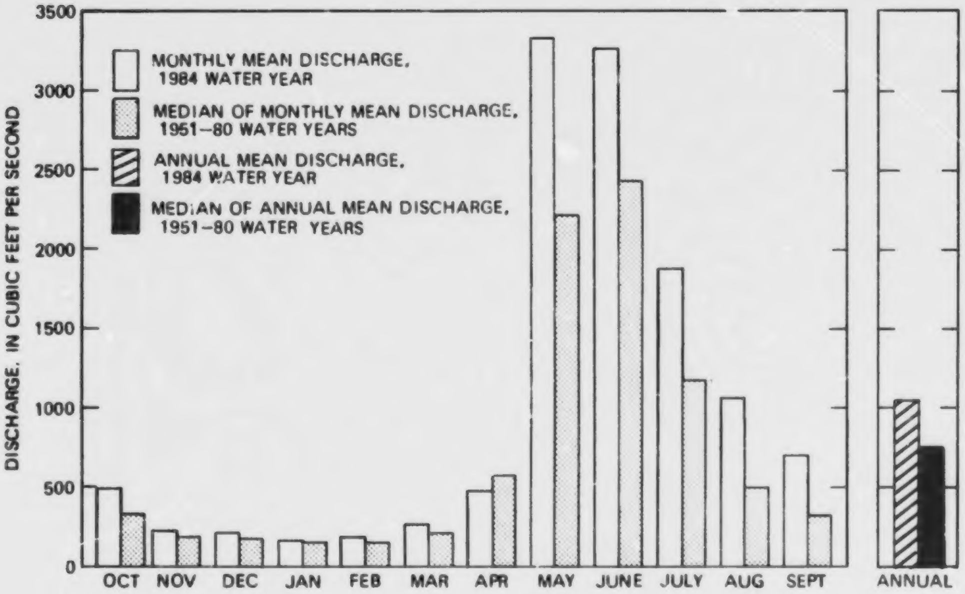


A. Bear Creek at Morrison. Drainage area 164 square miles



B. Arkansas River at Parkdale. Drainage area 2,548 square miles

Figure 4.--Discharge for 1984 water year compared with median discharge for 1951-80 water years at three representative streamflow-gaging stations.



C. Rio Grande near Del Norte. Drainage area 1.320 square miles

Figure 4.--Discharge for 1984 water year compared with median discharge for 1951-80 water years at three representative streamflow-gaging stations--Continued.

Chemical Quality of Streamflow

In the South Platte River basin, large total aluminum concentrations and trace concentrations of mercury were measured for stations on the Cache La Poudre and Big Thompson Rivers.

A third consecutive year of greater than normal snowpack in the Arkansas River basin resulted in higher runoff and baseflow in the Arkansas River and most tributaries. The higher flows resulted in smaller concentrations of major ions, and thus smaller concentrations of dissolved solids than have been determined during most previous years. However, the increased flows during the spring runoff resulted in generally larger concentrations of suspended sediment in the basin than in most previous years.

Summaries of water-quality conditions in the Arkansas River basin are contained in two reports published during 1984. The first report by Crouch and others, (1984) describes the general hydrology and surface- and ground-water quality in the upper Arkansas River basin from Leadville to Pueblo Colorado. The second report by Cain (1984), discusses return flows from irrigation and their effect on water quality in the Arkansas River, and also provides an overview of water-quality conditions in the Arkansas River downstream from Pueblo.

A report by Spahr and others (1985) presents the data collected for a study to determine the effects of the discharge of treated effluent from the Bi-City Wastewater Treatment Plant on the quality of water in the South Platte River during low-flow conditions.

Ground Water

Water levels indicate the response of an aquifer to recharge and discharge. Recharge and discharge can be either natural or manmade. Water levels will rise when recharge is plentiful and discharge is small and will decline when recharge is small and discharge is large. Water levels also are used to help define hydrologic units.

The aquifers within the Missouri River, Arkansas River, and Rio Grande basins can be grouped into two categories: Unconsolidated aquifers and consolidated aquifers. The unconsolidated aquifers receive recharge from precipitation, return flow from applied irrigation water, and leakage from canals and streams. Discharge of ground water may be by seepage to streams, seeps, or springs, by loss to evapotranspiration, or by withdrawal by wells. The consolidated aquifers receive recharge from precipitation and streams crossing outcrop areas. These aquifers primarily discharge water to springs and streams, although locally some discharge is by wells.

East of the Continental Divide, because of man's intensive use of ground water, the major fluctuations in water levels are declines caused by pumping wells. Ground water is being mined from unconsolidated aquifers in the Northern High Plains and from consolidated aquifers in the Denver Basin. The aquifers in the alluvial valleys in eastern Colorado have been affected by both recharge from surface-water irrigation and discharge by ground-water pumpage.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal-growth potential (AGP) refers to the results of an algal assay test which determines the nutrients that are limiting to growth, as well as to quantify the biological response to changes in concentrations of algal growth-limiting nutrients. These measurements are made by inoculating a water sample with an algal test organism and evaluating its growth response to various additions of nutrients overtime. The water samples are spiked with .005 mg/L phosphorus and .075 mg/L nitrogen, and the algal growth potential results are reported in milligrams per liter.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, of spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2C° on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a streambed, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necesssary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area of volume of habitat.

Ash mass is the mass of amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and those for periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (cfs, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second, or 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium anbd magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (UG/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulaltion tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 3.-- Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*	0.11119	Iodide (I^{-1})	0.00788
Ammonia as N	.07139	Iron (Fe^{+3})*	.05372
Barium (Ba^{+2})	.01456	Lead (Pb^{+2})*	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*	.14411
Bromide (Br^{-1})	.01251	Magnesium (Mg^{+2})*	.08226
Calcium (Ca^{+2})	.04990	Manganese (Mn^{+2})*	.03640
Carbonate (CO_3^{-2})	.03333	Nickel (Ni^{+2})*	.03406
Chloride (Cl^{-1})	.02821	Nitrate as N	.07139
Chronium (Cr^{+6})*	.11539	Nitrite as N	.07139
Cobalt (Co^{+2})*	.03394	Phosphate,ortho as P	.09686
Copper (Cu^{+2})*	.03148	Potassium (K^{+1})	.02557
Cyanide (CN^{-1})	.03844	Sodium (Na^{+1})	.04350
Fluoride (F^{-1})	.05264	Strontium (Sr^{+2}*	.02283
Hydrogen (H^{+1})	.99209	Sulfate (SO_4^{-2})	.02082
Hydroxide (OH^{-1})	.05880	Zinc (ZN^{+2})*	.03060

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 4.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*

(All values calculated to three significant figures)

Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	639-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	313-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

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*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.............	0.00024 - 0.004	Sedimentation
Silt.............	.004 - .062	Sedimentation
Sand.............	.062 - 2.0	Sedimentation or sieve
Gravel...........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per mL of sample.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be

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analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in ug/L (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (ug/L). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the work "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in the U.S. Geological Survey is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1981, is called the "1981 water year."

Weighted average is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1975.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly or annual figures of discharge are affected by the revisions, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second (ft^3/s) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second (ft^3/s) for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the folowing agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and the Bureau of Reclamation.

Access to WATSTORE DATA

The National WAter Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 39.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

REVISIONS--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually the water temperatures are taken about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Table 5.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C equals 5/9(°F-32°) or °F equals 9/5(°C)+32°.

Ir October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll a and b, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the streams.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

BE Y AVAILABLE

WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 6.--Water-Supply Paper numbers and parts, water years 1941-71

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65)[1]
1941	942	942	942	942	----
1942	950	950	950	950	----
1943	970	970	970	970	----
1944	1022	1022	1022	1022	----
1945	1030	1030	1030	1030	----
1946	1050	1050	1050	1050	----
1947	1102	1102	1102	1102	----
1948	1132	1133	1133	1133	----
1949	1162	1163	1163	1163	----
1950	1187	1188	1188	1189	----
1951	1198	1199	1199	1200	1264
1952	1251	1252	1252	1253	1362
1953	1291	1292	1292	1293	1380
1954	1351	1352	1352	1353	1430
1955	1401	1402	1402	1403	1465
1956	1451	1452	1452	1453	1485
1957	1521	1522	1522	1523	1524
1958	1572	1573	1573	1574	1575
1959	1643	1644	1644	1645	1699
1960	1743	1744	1744	1745	1746
1961	1883	1884	1884	1885	1886
1962	1943	1944	1944	1945	1946
1963	1949	1950	1950	1951	1952
1964	1956	1957	1957	1958	1960
1965	1963	1964	1964	1965	1967
1966	1993	1994	1994	1995	----
1967	2013	2014	2014	2015	----
1968	2095	2096	2097	2098	----
1969	2145	2146	2147	2148	----
1970	2155	2156	2157	2158	----
1971	2165	[2]2166	[2]2167	[2]2168	----

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[1] Annual series, "Quality of Surface Waters for Irrigation, Western States."

[2] In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits are sequential numbers for wells within a 1-second grid, as shown below in figure 6.

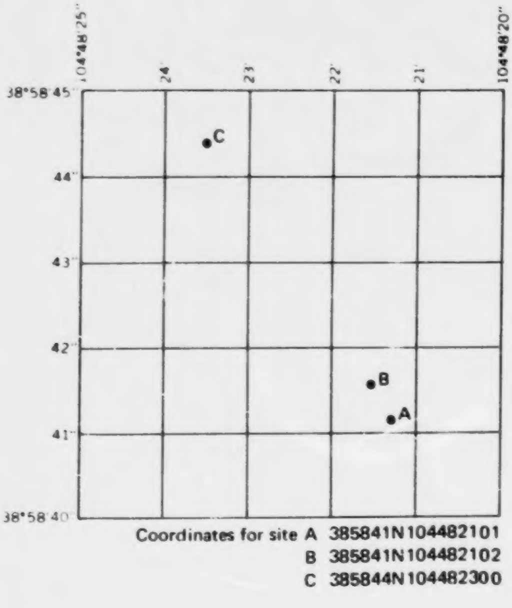

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre tract using the U.S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi by townships and is subdivided in the east-west direction every 6 mi by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi^2 area described by the township and range designation is subdivided into 1-mi^2 areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres, is subdivided into quarter sections. The 160-acre area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

The local number is provided for continuity with older reports.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the meaasuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly. most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.
1940	910	1945	1027	1950	1169	1955	1408
1941	940	1946	1075	1951	1195	1956-60	1760
1942	948	1947	1100	1952	1225	1961-65	1845
1943	990	1948	1130	1953	1269	1966-70	1980
1944	1020	1949	1160	1954	1325		

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

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PLATTE RIVER BASIN

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO

LOCATION.--Lat 40 29'46", long 105 51'52", in S½ sec.12, T.6 N., R.76 W. (unsurveyed), Jackson County, Hydrologic Unit 10180001, on right bank 500 ft upstream from Michigan ditch, 2.2 mi southeast of Cameron Pass, 8 mi east of Gould, and 27 mi southeast of Walden.

DRAINAGE AREA.--1.53 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,390 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 3.09 ft³/s; 2,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64 ft³/s, June 30, 1984, gage height, 3.28 ft; maximum gage height, 3.53 ft, June 18, 1974; minimum daily discharge, 0.12 ft³/s, Jan. 12, 13, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft³/s at 1630 June 30, gage height, 3.28 ft; minimum daily, 0.20 ft³/s, Feb. 17 to Mar. 4, May 1-3, 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.84	.50	.33	.25	.20	.25	.20	16	29	7.3	6.4
2	1.1	.78	.50	.33	.25	.20	.25	.20	14	25	6.8	4.9
3	1.1	.72	.50	.33	.25	.20	.25	.20	13	21	6.2	4.3
4	1.2	.68	.50	.33	.25	.20	.25	.22	13	20	5.8	3.8
5	1.2	.64	.50	.33	.25	.22	.29	.22	12	19	5.7	3.6
6	1.2	.60	.50	.33	.25	.22	.22	.20	9.8	17	6.0	3.3
7	1.2	.54	.50	.33	.25	.22	.25	.20	8.2	17	5.7	3.4
8	1.2	.50	.50	.33	.25	.22	.25	.20	7.1	18	5.2	3.4
9	1.2	.50	.50	.33	.25	.22	.25	.33	6.4	23	5.1	3.0
10	1.2	.50	.50	.33	.25	.22	.29	.45	6.0	24	4.9	2.7
11	1.2	.50	.50	.33	.25	.22	.29	.86	7.8	15	4.5	2.7
12	1.2	.50	.50	.33	.23	.22	.29	1.8	9.2	14	5.4	3.1
13	1.2	.50	.50	.33	.22	.22	.29	2.5	13	13	5.0	3.8
14	1.2	.50	.50	.33	.22	.22	.29	3.0	19	13	4.8	3.5
15	1.2	.50	.50	.33	.22	.22	.29	3.6	22	12	4.7	3.2
16	1.2	.50	.45	.33	.22	.22	.29	3.4	24	11	4.4	4.2
17	1.2	.50	.43	.33	.20	.22	.29	3.4	22	9.8	4.3	3.8
18	1.1	.50	.41	.33	.20	.22	.29	3.3	21	9.0	4.6	3.3
19	1.0	.50	.39	.33	.20	.22	.29	3.4	21	8.9	4.9	3.1
20	1.0	.50	.37	.33	.20	.22	.29	4.6	22	9.0	8.2	2.9
21	1.0	.50	.35	.31	.20	.22	.29	5.4	24	9.3	7.5	3.1
22	1.0	.50	.33	.29	.20	.22	.25	5.8	26	9.8	6.5	3.2
23	1.0	.50	.33	.29	.20	.22	.25	6.9	24	11	5.8	2.7
24	1.0	.50	.33	.25	.20	.22	.25	9.2	23	12	7.3	2.6
25	1.0	.50	.33	.25	.20	.22	.25	10	22	11	7.3	2.9
26	1.0	.50	.33	.25	.20	.22	.22	8.0	24	8.7	7.0	2.8
27	1.0	.50	.33	.25	.20	.22	.22	8.5	29	7.7	6.1	2.7
28	1.0	.50	.33	.25	.20	.22	.22	9.2	29	7.5	5.4	2.4
29	1.0	.50	.33	.25	.20	.25	.22	11	31	7.9	4.9	2.3
30	.92	.50	.33	.25	---	.25	.22	19	32	8.6	4.5	2.2
31	.90	---	.33	.25	---	.25	---	19	---	7.7	4.2	---
TOTAL	34.02	16.30	13.20	9.49	6.46	6.83	7.84	144.28	550.5	428.9	176.0	99.3
MEAN	1.10	.54	.43	.31	.22	.22	.26	4.65	18.3	13.8	5.68	3.31
MAX	1.2	.84	.50	.33	.25	.25	.29	19	32	29	8.2	6.4
MIN	.90	.50	33	.25	.20	.20	.22	.20	6.0	7.5	4.2	2.2
AC-FT	67	32	26	19	13	14	16	286	1090	851	349	197

CAL YR 1983 TOTAL 1641.00 MEAN 4.50 MAX 38 MIN .29 AC-FT 3250
WTR YR 1984 TOTAL 1493.12 MEAN 4.08 MAX 32 MIN .20 AC-FT 2960

NOTE.--NO GAGE-HEIGHT RECORD OCT. 5 TO JAN. 11.

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION (REVISED).--Lat 40°56'15", long 106°20'16", in NE¼SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 350 ft downstream from bridge on State Highway 125, 0.8 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line. Prior to Sept. 20, 1984, at site 650 ft upstream.

DRAINAGE AREA.--1,431 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft, National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder, at site 0.8 mi downstream at datum 3.36 ft lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin.

AVERAGE DISCHARGE.--69 years, 440 ft³/s; 318,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s, June 11, 1923, gage height, 6.24 ft, site and datum then in use; maximum gage height recorded, 9.65 ft, Apr. 25, 1980, (ice jam); minimum daily discharge, 19 ft³/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,460 ft³/s May 17, gage height, 7.84 ft; minimum daily, 120 ft³/s, Mar. 2-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	211	181	174	153	121	194	1200	3350	2150	1170	402
2	134	217	197	178	151	120	198	1320	3550	2420	1090	508
3	159	220	209	180	149	120	202	1110	3690	2230	937	505
4	208	220	219	183	147	120	202	1180	3660	1870	800	411
5	210	200	220	187	145	120	206	1380	3380	1600	733	350
6	203	198	219	190	144	120	215	1420	3220	1480	730	305
7	192	200	198	197	143	121	226	1290	3170	1330	852	273
8	182	217	164	201	141	123	240	1250	3190	1200	844	316
9	176	254	160	203	140	125	259	1500	3220	1290	710	305
10	184	234	169	209	139	127	280	2100	2720	1910	617	278
11	253	271	187	210	138	130	291	2870	2110	2450	554	253
12	279	289	208	210	136	133	300	4140	1550	2340	515	284
13	257	291	226	210	135	136	301	4700	1300	1560	518	382
14	240	240	228	201	133	141	310	5100	1200	1460	542	411
15	250	161	221	193	132	145	311	5640	1390	1340	531	373
16	264	244	213	181	131	148	312	5950	1780	1230	592	351
17	234	280	207	173	130	150	320	6080	2140	1160	580	402
18	227	338	201	169	129	152	340	5650	2320	1100	491	422
19	272	245	200	164	129	156	425	5180	2280	970	482	370
20	299	214	197	160	129	161	625	4520	2080	883	549	332
21	257	254	191	158	128	164	740	4090	1960	899	706	306
22	239	219	187	157	127	167	850	4480	2020	863	760	338
23	229	190	182	152	125	169	960	4810	2030	880	651	372
24	218	213	178	151	123	170	1160	4750	1930	1090	558	330
25	210	253	174	151	122	172	1520	4920	1860	1310	569	310
26	205	209	170	152	121	176	1630	5750	2030	1350	600	326
27	204	200	169	154	121	177	1500	5680	2090	1190	534	347
28	203	189	168	157	121	180	1340	4480	1990	1070	473	354
29	202	180	168	159	121	181	1230	3910	1890	1130	430	341
30	200	168	170	159	---	186	1110	3450	1850	1120	408	323
31	204	---	172	155	---	190	---	3230	---	1100	374	---
TOTAL	6728	6819	5953	5478	3883	4601	17797	113130	70950	43975	19900	10580
MEAN	217	227	192	177	134	148	593	3649	2365	1419	642	353
MAX	299	338	228	210	153	190	1630	6080	3690	2450	1170	508
MIN	134	161	160	151	121	120	194	1110	1200	863	374	253
AC-FT	13340	13530	11810	10870	7700	9130	35300	224400	140700	87220	39470	20990

CAL YR 1983 TOTAL 288632 MEAN 791 MAX 4850 MIN 86 AC-FT 572500
WTR YR 1984 TOTAL 309794 MEAN 846 MAX 6080 MIN 120 AC-FT 614500

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
OCT										
25...	1005	208	.0	100	28	7.7	13	.6	1.2	100
DEC										
21...	1700	191	.0	100	27	7.8	12	.5	1.2	110
FEB										
01...	1015	153	.0	120	33	9.0	15	.6	1.7	130
MAR										
06...	1200	120	.0	110	32	8.4	12	.5	1.5	120
APR										
17...	1630	--	--	110	34	5.4	18	.8	4.2	107
17...	1635	330	.0	100	28	8.5	15	.7	2.3	110
MAY										
15...	0945	5640	11.5	94	24	8.2	16	.7	3.1	86
JUN										
15...	1350	1430	18.0	100	28	7.4	14	.6	1.3	100
JUL										
11...	1030	2380	16.0	100	27	7.9	14	.6	1.6	110
AUG										
17...	0850	591	15.5	99	28	7.1	14	.6	1.8	100
SEP										
19...	1550	397	17.5	88	24	6.7	9.6	.5	.60	84

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT									
25...	22	2.4	.40	9.5	140	.20	81	.00	.080
DEC									
21...	22	2.0	.20	13	150	.21	78	.10	.060
FEB									
01...	23	2.2	.20	15	180	.24	73	.20	.000
MAR									
06...	22	1.8	.80	15	170	.23	54	.20	.000
APR									
17...	30	3.0	.30	18	180	.24	--	<.10	.040
17...	30	3.8	.40	11	160	.22	147	.10	.150
MAY									
15...	34	3.1	.20	11	150	.21	2300	.10	.080
JUN									
15...	21	2.2	.30	9.7	140	.20	555	.10	.040
JUL									
11...	19	2.2	.30	9.4	150	.20	947	.00	.040
AUG									
17...	24	3.4	.50	4.8	140	.20	229	.00	.050
SEP									
19...	15	2.0	.20	9.9	120	.16	127	.00	.020

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
MAY							
15...	0945	<.01	<.01	<.01	<.01	.010	<.010
SEP							
19...	1550	<.01	<.01	<.01	<.01	<.010	<.010

06695000 SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTSEL, CO

LOCATION.--Lat 38°58'03", long 105°34'51", in NE¼ sec.32, T.12 S., R.73 W., Park County, Hydrologic Unit 10190001, on left bank 200 ft downstream from highway bridge, 2.5 mi upstream from water line of Elevenmile Canyon Reservoir, at elevation 8,561 ft, and 13 mi southeast of Hartsel.

DRAINAGE AREA.--880 mi^2.

PERIOD OF RECORD.--June 1933 to current year (no winter records prior to 1940). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1630: 1958. WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 8,612.83 ft, Denver Board of Water Commissioners Datum. Prior to May 27, 1939, water-stage recorder near present site at different datum. May 27, 1939, to Nov. 4, 1961, at datum 0.46 ft, lower.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Antero Reservoir, capacity, 22,300 acre-ft, prior to Sept. 15 1981, and by Spinney Mountain Reservoir, 3.6 mi upstream, capacity, 152,900 acre-ft, since Sept. 15 1981. Many small diversions above station for irrigation of about 24,000 acres. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years, (water years 1940-81), 77.3 ft^3/s; 56,000 acre-ft/yr, prior to completion of Spinney Mountain Dam. Figures of average discharge published in the 1982 and 1983 reports are in error, and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous discharge, not determined, occurred Apr. 28, 1970, gage height, 7.60 ft, from floodmarks; maximum daily discharge, 3,970 ft^3/s, Apr. 27, 1970; minimum daily, 0.20 ft^3/s, Oct. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 863 ft^3/s at 2100 Aug. 17, gage height, 4.00 ft, minimum daily, 18 ft^3/s, Apr 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	29	29	45	41	64	132	132	364	439	529	199
2	128	29	29	43	41	70	132	128	302	453	456	223
3	128	29	30	46	41	70	132	128	445	467	349	253
4	130	29	30	45	41	70	134	128	442	467	342	249
5	79	29	31	45	42	68	134	128	402	415	294	223
6	24	29	32	45	41	66	122	128	355	369	236	219
7	24	29	29	43	40	62	117	128	364	301	296	185
8	26	29	29	40	39	58	118	104	364	271	397	162
9	24	29	30	37	39	56	118	102	364	256	397	153
10	24	29	30	45	39	58	118	128	361	287	377	122
11	24	29	31	56	38	58	77	128	349	327	299	92
12	24	30	29	56	39	58	55	128	282	327	232	58
13	24	29	34	56	40	57	55	128	185	327	205	40
14	45	29	38	56	40	57	57	128	170	310	195	40
15	61	29	38	56	40	58	57	120	292	306	211	40
16	61	29	38	58	38	37	57	107	415	310	253	40
17	61	29	38	58	37	24	60	107	405	315	213	97
18	61	30	38	59	36	26	60	107	387	332	561	125
19	61	29	37	60	35	29	80	107	387	317	588	81
20	61	29	37	47	35	35	106	107	387	276	582	66
21	61	30	36	40	36	35	106	107	387	278	564	77
22	61	29	36	40	37	35	106	107	387	262	537	98
23	61	29	38	40	40	37	42	109	405	243	532	79
24	61	29	38	41	52	48	18	162	418	243	561	70
25	54	29	38	42	68	48	52	276	421	289	564	68
26	26	29	38	43	66	46	128	304	421	382	546	68
27	29	29	38	43	64	46	128	325	372	320	354	68
28	29	29	38	43	64	72	128	325	372	248	317	68
29	29	29	38	43	64	93	128	325	389	481	306	68
30	29	29	38	42	---	107	130	325	402	458	269	68
31	30	---	38	41	---	132	---	325	---	423	234	---
TOTAL	1681	873	1071	1454	1273	1780	2887	5091	10996	10499	11796	3399
MEAN	54.2	29.1	34.5	46.9	43.9	57.4	95.2	164	367	339	381	113
MAX	141	30	38	60	68	132	134	325	445	481	588	253
MIN	24	29	29	37	35	24	18	102	170	243	195	40
AC-FT	3330	1730	2120	2880	2520	3530	5730	10100	21810	20820	23400	6740

CAL YR 1983 TOTAL 31981 MEAN 87.6 MAX 594 MIN 13 AC-FT 63430
WTR YR 1984 TOTAL 52800 MEAN 144 MAX 588 MIN 18 AC-FT 104700

NOTE.--NO GAGE-HEIGHT RECORD DEC. 15 TO MAR. 13.

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO

LOCATION.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, on left bank 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 mi southwest of town of Lake George.

DRAINAGE AREA.--963 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,458 ft, from topographic map. Prior to Oct. 26, 1940, at site 1 mi downstream at datum 8,423.95 ft, National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions through East and West Hoosier ditches at Hoosier Pass prior to 1941, storage in Elevenmile Canyon Reservoir (see elsewhere in this report) and Antero Reservoir, capacity, 22,300 acre-ft, diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years, 74.6 ft³/s; 54,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,000 ft³/s, Apr. 28, 1970, gage height, 8.34 ft, from floodmarks, by computation of outflow from Elevenmile Canyon Reservoir; no flow at times in January 1930, February 1931, and November 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 723 ft³/s at 2130 Aug. 24, gage height, 4.80 ft; minimum daily, 18 ft³/s, Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	28	24	55	40	71	139	117	282	421	447	368
2	153	28	24	40	40	65	139	121	290	429	483	328
3	153	28	26	40	40	65	147	125	309	441	463	316
4	149	28	26	40	40	65	149	128	339	445	449	302
5	109	28	26	40	40	65	151	131	357	449	413	287
6	30	28	26	40	40	65	135	136	355	433	379	273
7	23	28	26	38	40	65	112	138	366	408	350	255
8	24	30	26	37	40	64	117	135	363	375	344	227
9	24	26	26	37	40	64	91	131	359	350	352	212
10	24	25	27	41	40	64	47	133	350	332	355	192
11	20	26	27	51	40	64	37	134	355	325	348	178
12	18	25	27	51	40	64	41	136	342	321	323	160
13	19	26	36	51	40	65	42	138	318	291	288	136
14	34	25	44	51	40	65	41	140	288	319	272	118
15	46	24	47	51	40	65	42	143	273	314	254	106
16	48	24	53	51	40	43	45	140	297	312	247	98
17	47	24	55	51	45	34	49	136	325	305	284	91
18	65	27	55	51	51	34	42	135	337	335	471	96
19	57	25	55	51	51	34	40	131	348	394	527	98
20	56	24	48	51	52	35	52	131	455	302	577	98
21	54	24	45	51	52	35	66	130	370	260	619	95
22	56	24	42	51	52	35	73	124	372	255	634	91
23	56	24	40	52	52	43	76	124	372	247	641	91
24	53	24	40	52	56	48	71	126	387	241	674	87
25	47	24	40	52	69	64	70	135	400	236	697	77
26	29	24	40	43	69	112	75	167	413	252	695	76
27	28	24	40	40	76	112	84	188	415	283	646	74
28	28	24	40	39	80	105	91	207	402	292	584	70
29	28	24	57	39	80	98	106	233	400	339	523	72
30	28	24	89	40	---	112	111	252	412	392	465	70
31	28	---	90	40	---	139	---	267	---	419	417	---
TOTAL	1687	757	1267	1417	1425	2059	2481	4612	10651	10517	14221	4742
MEAN	54.4	25.6	40.9	45.7	49.1	66.4	82.7	149	355	339	459	158
MAX	153	30	90	55	80	139	151	267	455	449	697	368
MIN	18	24	24	37	40	34	37	117	273	236	247	70
AC-FT	3350	1520	2510	2810	2830	4080	4920	9150	21130	20860	28210	9410

CAL YR 1983 TOTAL 19684 MEAN 53.9 MAX 392 MIN 14 AC-FT 39040
WTR YR 1984 TOTAL 55846 MEAN 153 MAX 697 MIN 18 AC-FT 110800

06696980 TARRYALL CREEK AT UPPER STATION, NEAR COMO, CO

LOCATION.--Lat 39°20'23", long 105°54'42", in NE¼SW¼ sec.20, T.8 S., R.76 W., Park County, Hydrologic Unit 10190001, on left bank 150 ft upstream from culvert on county road 1.8 mi northwest of Como. Prior to July 15, 1980, at site 250 ft downstream.

DRAINAGE AREA.--23.7 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,935 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 21.0 ft^3/s; 15,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined, maximum daily, 170 ft^3/s, June 12, 1980; minimum daily, 1.5 ft^3/s, Apr. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft^3/s at 2230 May 25, gage height, 2.57 ft; minimum daily, 3.0 ft^3/s, Jan. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	12	9.6	4.5	6.0	4.6	4.0	4.9	132	99	66	50
2	21	12	10	4.5	6.0	4.6	4.0	5.5	128	94	63	47
3	21	11	11	4.5	6.0	4.6	4.0	5.8	126	92	64	45
4	21	10	11	4.5	6.0	4.6	4.0	5.8	116	87	61	43
5	20	10	12	4.5	6.0	4.6	4.0	6.2	109	83	60	41
6	19	10	12	4.5	6.0	4.6	4.0	5.9	99	80	74	38
7	[illegible]	10	13	4.5	6.0	4.6	4.0	6.2	98	77	66	38
8	[illegible]	10	13	4.5	6.0	4.6	4.0	6.5	88	74	62	36
9	[illegible]	9.8	13	4.5	6.0	4.6	4.0	8.1	82	75	59	34
10	18	12	13	4.5	6.0	4.6	4.0	13	73	84	57	32
11	18	11	13	4.5	6.0	4.6	4.0	18	72	72	54	31
12	18	12	13	4.5	6.0	4.6	4.0	23	72	65	53	28
13	18	11	13	4.5	6.0	4.6	4.0	32	76	61	50	26
14	18	10	13	4.5	5.4	4.6	4.3	42	92	61	48	26
15	18	9.8	13	4.5	5.0	4.6	4.6	50	100	59	48	26
16	17	9.8	12	3.7	4.7	4.6	5.0	54	108	59	47	26
17	16	10	11	3.0	4.3	4.6	5.2	54	108	57	44	24
18	16	9.4	10	3.0	4.3	4.6	5.2	56	107	55	46	22
19	16	8.1	9.0	3.0	4.3	4.6	5.2	55	109	54	51	22
20	15	8.1	8.4	3.0	4.3	4.6	5.2	67	108	54	63	22
21	15	8.2	8.0	3.5	4.3	4.6	5.4	83	109	53	55	21
22	15	8.2	8.0	3.8	4.3	4.6	5.8	91	106	52	57	20
23	14	8.2	8.0	4.0	4.3	4.6	6.0	99	105	54	53	20
24	14	8.2	8.0	4.5	4.3	4.6	6.2	116	105	62	63	19
25	13	8.2	8.0	5.0	4.3	4.6	7.1	135	102	61	62	19
26	13	8.2	7.0	5.6	4.3	4.6	6.2	128	98	58	62	18
27	12	8.2	6.0	6.0	4.3	4.6	4.9	129	98	56	57	18
28	12	8.2	5.4	6.0	4.3	4.6	4.2	123	94	65	56	19
29	12	8.8	5.0	6.0	4.3	4.2	3.9	120	95	69	54	19
30	12	9.0	4.5	6.0	---	4.0	4.9	127	97	70	52	18
31	12	---	4.5	6.0	---	4.0	---	131	---	70	50	---
TOTAL	510	289.4	305.4	139.6	149.0	141.0	141.3	1800.8	3012	2112	1757	848
MEAN	16.5	9.65	9.85	4.50	5.14	4.55	4.71	58.1	100	68.1	56.7	28.3
MAX	21	12	13	6.0	6.0	4.6	7.1	135	132	99	74	50
MIN	12	8.1	4.5	3.0	4.3	4.0	3.9	4.9	72	52	44	18
AC-FT	1010	574	606	277	296	280	280	3570	5970	4190	3490	1680

CAL YR 1983 TOTAL 9267.7 MEAN 25.4 MAX 137 MIN 3.2 AC-FT 18380
WTR YR 1984 TOTAL 11205.5 MEAN 30.6 MAX 135 MIN 3.0 AC-FT 22230

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 24.

BEST COPY AVAILABLE

06697450 MICHIGAN CREEK ABOVE JEFFERSON, CO

LOCATION.--Lat 39°21'17", long 105°50'22", in NE¼SW¼ sec.13, T.8 S., R.76 W., Park County, Hydrologic Unit 10190001, on left bank 0.7 mi upstream from bridge on U.S. Highway 285 and 2.6 mi southwest of Jefferson.

DRAINAGE AREA.--23.3 mi².

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,503 ft, from topographic map. Prior to May 6, 1982, at site 0.4 mi upstream at different datum.

REMARKS.--Records good except those for winter period which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 13.9 ft³/s; 10,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 163 ft³/s June 27, 1983, gage height, 1.98 ft; maximum gage height, 2.11 ft, June 10, 1979, site and datum then in use; minimum daily discharge, 0.41 ft³/s Feb. 3-10, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105 ft³/s at 2230 May 25, gage height, 1.72 ft; minimum daily, 2.5 ft³/s, Jan. 15-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.2	9.0	3.5	4.0	6.0	9.0	9.0	81	81	63	32
2	11	8.8	9.0	3.5	4.0	6.0	9.0	10	74	76	55	31
3	10	8.8	9.0	3.5	4.0	6.0	9.0	10	69	72	47	29
4	11	8.8	9.0	3.5	4.0	6.0	9.0	10	69	71	42	27
5	11	8.8	9.0	3.5	4.0	6.0	9.0	12	69	67	39	24
6	11	8.8	9.0	3.5	4.0	6.0	9.0	14	63	66	61	24
7	10	9.2	9.0	3.5	4.0	6.0	9.0	17	66	66	47	24
8	11	9.0	9.0	3.5	4.0	6.0	9.0	20	55	63	42	24
9	11	9.0	9.0	3.5	4.0	7.4	9.8	25	49	71	38	22
10	10	9.0	9.0	3.5	4.0	9.0	10	28	40	91	34	20
11	11	9.0	9.0	3.5	4.0	11	10	39	38	78	32	20
12	11	11	9.0	3.5	4.0	11	10	42	40	67	31	19
13	11	11	9.0	3.5	4.0	11	10	45	46	63	30	18
14	11	12	9.0	2.9	4.0	11	10	43	66	61	28	17
15	10	9.0	9.0	2.5	4.0	11	10	39	76	61	30	16
16	11	8.0	9.0	2.5	4.5	11	10	45	84	56	31	18
17	11	8.0	8.0	2.5	5.0	11	10	40	83	50	26	15
18	10	8.0	7.0	2.5	5.4	11	10	43	79	46	27	12
19	10	8.0	6.4	2.5	6.0	11	10	38	88	45	31	13
20	10	8.0	6.0	2.5	6.0	11	10	46	86	45	40	14
21	10	8.0	6.0	2.5	6.0	11	10	59	86	40	39	12
22	10	8.0	6.0	2.5	6.0	11	10	67	76	38	47	12
23	9.2	8.0	6.0	2.9	6.0	11	10	78	72	64	34	12
24	9.2	8.0	6.0	3.5	6.0	11	10	84	72	84	47	11
25	8.8	8.0	6.0	4.0	6.0	11	10	98	72	72	43	9.2
26	8.8	8.0	6.0	4.0	6.0	10	10	88	72	67	50	10
27	8.8	8.0	6.0	4.0	6.0	9.4	9.4	86	72	58	39	10
28	8.8	8.0	5.4	4.0	6.0	9.0	8.4	81	74	69	36	12
29	8.8	8.0	4.5	4.0	6.0	9.0	8.0	81	72	83	33	12
30	9.2	8.0	4.0	4.0	---	9.0	8.0	84	76	96	32	12
31	9.2	---	3.5	4.0	---	9.0	---	83	---	66	32	---
TOTAL	313.8	261.4	230.8	102.8	140.9	284.8	285.6	1464.0	2065	2033	1206	531.2
MEAN	10.1	8.71	7.45	3.32	4.86	9.19	9.52	47.2	68.8	65.6	38.9	17.7
MAX	11	12	9.0	4.0	6.0	11	10	98	88	96	63	32
MIN	8.8	8.0	3.5	2.5	4.0	6.0	8.0	9.0	38	38	26	9.2
AC-FT	622	518	458	204	279	565	566	2900	4100	4030	2390	1050

CAL YR 1983	TOTAL	7398.4	MEAN	20.3	MAX	124	MIN	1.5	AC-FT 14670
WTR YR 1984	TOTAL	8919.3	MEAN	24.4	MAX	98	MIN	2.5	AC-FT 17690

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO MAY 9.

06698000 JEFFERSON CREEK NEAR JEFFERSON, CO

LOCATION.--Lat 39°23'34", long 105°48'38", in SE¼SE¼ sec.31, T.7 S., R.75 W., Park County, Hydrologic Unit 10190001, on right bank 1.2 mi northwest of Jefferson and 1.3 mi upstream from bridge on U.S. Highway 285.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--May 1978 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 9,600 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76 ft³/s, July 25, 1984, gage height, 1.89 ft; no flow Jan. 28 to Apr. 5, 1979, May 18, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s at 0430 July 25, gage height, 1.89 ft; minimum daily, 0.20 ft³/s, Jan. 15-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	9.5	4.5	.64	.22	.22	.48	3.2	35	45	42	30
2	31	7.8	4.7	.50	.22	.22	.54	3.2	34	46	41	29
3	31	7.0	4.8	.40	.22	.22	.60	3.3	33	44	40	27
4	32	6.4	4.9	.30	.22	.22	.70	3.4	30	42	39	26
5	32	6.4	5.0	.25	.22	.22	.78	3.5	28	40	37	24
6	32	5.9	5.0	.22	.22	.25	.90	3.5	24	38	34	23
7	31	5.9	5.0	.22	.22	.27	1.0	3.5	22	36	32	23
8	31	5.7	5.0	.22	.22	.30	1.1	3.6	18	35	32	22
9	30	5.6	5.0	.22	.22	.34	1.2	3.8	16	36	30	20
10	30	5.4	5.0	.22	.22	.35	1.2	4.0	13	39	28	18
11	30	5.4	5.0	.22	.22	.37	1.2	5.9	13	34	27	19
12	29	5.4	5.0	.22	.22	.38	1.3	7.2	15	32	26	18
13	28	5.2	5.0	.22	.22	.38	1.4	10	17	31	25	18
14	28	5.0	5.0	.22	.22	.38	1.6	12	27	30	24	17
15	27	4.8	5.0	.20	.22	.38	2.0	14	37	29	25	17
16	27	4.7	4.5	.20	.22	.38	2.5	14	41	19	26	17
17	26	4.5	4.0	.20	.22	.38	3.1	11	39	17	24	16
18	26	4.5	3.4	.20	.22	.38	3.5	17	35	18	25	15
19	25	4.5	2.6	.20	.22	.38	3.5	16	30	24	26	15
20	25	4.5	2.5	.20	.22	.38	3.5	18	30	24	29	16
21	24	4.5	2.5	.22	.22	.38	4.0	22	33	24	30	15
22	23	4.5	2.5	.22	.22	.38	4.4	27	35	26	33	14
23	22	4.5	2.5	.22	.22	.38	4.8	32	34	30	29	15
24	22	4.5	2.5	.22	.22	.38	4.8	37	34	46	37	15
25	22	4.5	2.5	.22	.22	.38	4.7	43	33	57	38	15
26	21	4.5	2.5	.22	.22	.38	4.5	38	31	56	40	18
27	21	4.5	2.5	.22	.22	.38	4.0	36	31	46	37	37
28	20	4.5	1.8	.22	.22	.38	3.6	33	32	44	35	41
29	20	4.5	1.3	.22	.22	.38	3.0	32	32	48	33	40
30	19	4.5	1.0	.22	---	.38	3.0	33	34	48	32	39
31	17	---	.80	.22	---	.38	---	35	---	46	31	---
TOTAL	812	159.1	113.30	7.69	6.38	10.58	72.90	528.1	866	1130	987	659
MEAN	26.2	5.30	3.65	.25	.22	.34	2.43	17.0	28.9	36.5	31.8	22.0
MAX	32	9.5	5.0	.64	.22	.38	4.8	43	41	57	42	41
MIN	17	4.5	.80	.20	.22	.22	.48	3.2	13	17	24	14
AC-FT	1610	316	225	15	13	21	145	1050	1720	2240	1960	1310

CAL YR 1983	TOTAL	4407.60	MEAN	12.1	MAX	47	MIN	.80	AC-FT 8740
WTR YR 1984	TOTAL	5352.05	MEAN	14.6	MAX	57	MIN	.20	AC-FT 10620

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO MAY 9.

06699005 TARRYALL CREEK BELOW ROCK CREEK, NEAR JEFFERSON, CO

LOCATION.--Lat 39°27'13", long 105°41'43", in NW¼NW¼ sec.8, T.9 S., R.74 W., Park County, Hydrologic Unit 10190001, on left bank 1,800 ft downstream from Rock Creek, 1.0 mi northwest of Bordenville and 9 mi southeast of Jefferson.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--April 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,020 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s, June 28, 1983, gage height 6.47 ft; minimum daily, 10 ft³/s, Jan. 9-20, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 503 ft³/s at 0530 July 28, gage height 5.06 ft; minimum daily 10 ft³/s, Jan. 9-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	29	21	13	12	11	11	18	209	292	194	119
2	76	29	21	13	12	11	11	21	209	273	192	113
3	76	29	21	13	12	11	11	24	204	248	190	109
4	77	29	21	13	12	11	13	29	201	242	180	99
5	74	28	21	13	12	11	15	34	195	234	190	92
6	68	26	21	13	12	11	17	40	190	225	190	87
7	62	26	21	12	12	11	19	48	259	239	188	83
8	58	26	21	11	12	11	19	58	243	243	158	86
9	54	26	21	10	12	11	19	70	191	266	158	80
10	50	26	21	10	12	11	19	80	160	332	147	74
11	50	26	21	10	12	11	19	96	148	277	134	73
12	50	26	21	10	12	11	19	104	130	226	124	73
13	50	26	21	10	12	11	19	108	132	212	123	70
14	50	26	21	10	12	11	19	112	137	226	113	72
15	45	26	21	10	12	11	19	110	168	223	114	76
16	40	26	21	10	12	11	19	118	189	249	124	74
17	36	26	21	10	12	11	19	115	212	199	176	70
18	35	26	21	10	11	11	19	129	210	184	144	64
19	35	26	18	10	11	11	19	122	204	186	158	63
20	35	23	15	10	11	11	19	123	212	177	171	68
21	35	21	13	11	11	11	19	140	219	179	170	67
22	35	21	13	12	11	11	19	152	221	168	249	62
23	35	21	13	12	11	11	19	171	218	182	164	59
24	35	21	13	12	11	11	19	183	236	236	190	58
25	31	21	13	12	11	11	19	204	222	273	241	54
26	29	21	13	12	11	11	18	210	232	280	178	54
27	29	21	13	12	11	11	18	204	228	295	144	67
28	29	21	13	12	11	11	18	199	222	425	128	75
29	29	21	13	12	11	11	18	196	219	457	123	85
30	29	21	13	12	---	11	18	195	249	346	115	85
31	29	---	13	12	---	11	---	201	---	294	112	---
TOTAL	1442	741	554	352	336	341	529	3614	6069	7888	4982	2311
MEAN	46.5	24.7	17.9	11.4	11.6	11.0	17.6	117	202	254	161	77.0
MAX	77	29	21	13	12	11	19	210	259	457	249	119
MIN	29	21	13	10	11	11	11	18	130	168	112	54
AC-FT	2860	1470	1100	698	666	676	1050	7170	12040	15650	9880	4580

WTR YR 1984 TOTAL 29159 MEAN 79.7 MAX 457 MIN 10 AC-FT 57840

NOTE.--NO GAGE-HEIGHT RECORD OCT. 5 TO MAY 9.

PLATTE RIVER BASIN

RESERVOIRS IN SOUTH PLATTE RIVER BASIN

06695500 ELEVENMILE CANYON RESERVOIR.--Lat 38°54'19", long 105°28'30", in N½SW¼ sec.20, T.13 S., R.72 W., Park
County, Hydrologic Unit 10190001, at north end of dam on South Platte River, 8 mi southwest of Lake George.
DRAINAGE AREA, 963 mi². PERIOD OF RECORD, October 1932 to current year. Prior to September 1938, published
in WSP 1310. REVISED RECORDS, WSP 1730: Drainage area. GAGE, nonrecording gage read twice daily. Datum of
gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage
readings have been reduced to elevations NGVD.
Reservoir is formed by concrete arch dam; storage began in October 1932; dam completed in November 1932.
Spillway built 5.00 ft, higher, Aug. 1, 1957. Capacity, 97,780 acre-ft, between elevations 8,488.25 ft,
invert of outlet pipe, and 8,597.00 ft, crest of spillway. Dead storage is negligible. Figures given
represent total contents. Water is for municipal use by city of Denver. Records furnished by Denver Board
of Water Commissioners.
EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 111,200 acre-ft, Apr.28, 1970, elevation,
8,600.82 ft; no contents at times in 1935.
EXTREMES FOR CURRENT YEAR: Maximum contents observed, 105,200 acre-ft, Aug. 25, elevation, 8,599.13 ft;
minimum observed, 97,680 acre-ft, Nov. 1-7, elevation, 8,596.97 ft.

06701000 CHEESMAN LAKE.--Lat 39°12'26", long 105°15'18", in NW¼SW¼ sec.6, T.10 S., R.70 W., Douglas County,
Hydrologic Unit 10190002, at dam on South Platte River, 4.1 mi southwest of Deckers. DRAINAGE AREA, 1,752
mi². PERIOD OF RECORD, September 1900 to December 1901, September 1902 to current year. Prior to October
1938, published in WSP 1310. Published as Lake Cheesman prior to 1947. REVISED RECORDS, WSP 1730:
Drainage area. GAGE, nonrecording gage read twice daily. Datum of gage is National Geodetic Vertical Datum
of 1929 (levels by Denver Board of Water Commissioners).
Reservoir is formed by masonry dam. Storage began September 1900. Dam completed about October 1902.
Capacity, 79,060 acre-ft at gage height 212 ft, spillway crest, above sill of lowest gate. No dead storage.
Figures given represent total contents. Water is for municipal use by city of Denver. Records furnished by
Denver Board of Water Commissioners.
EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 81,360 acre-ft, Apr. 29, 1970, gage height,
214.60 ft; minimum observed since appreciable storage was attained, 3,650 acre-ft, Apr. 20, 1933, gage
height, 55.02 ft.
EXTREMES FOR CURRENT YEAR: Maximum contents observed, 80,290 acre-ft, Aug. 25, gage height, 213.39 ft;
minimum observed, 70,990 acre-ft, Mar. 1, gage height, 202.45 ft.

MONTHEND ELEVATION IN FEET AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation a(feet)	Contents (acre-feet)	Change in contents (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	06695500	ELEVENMILE CANYON RESERVOIR		06701000	CHEESMAN LAKE	
Sept. 30..........	8,597.22	98,530	-	210.32	77,600	-
Oct. 31..........	8,596.98	97,710	-820	209.91	77,250	-350
Nov. 30..........	8,597.04	97,920	+210	210.28	77,570	+320
Dec. 31..........	8,597.00	97,780	-140	209.00	76,470	-1,100
CAL YR 1983...			+23,750			-1,400
Jan. 31...........	8,596.99	97,750	-30	205.94	73,880	-2,590
Feb. 29...........	8,597.00	97,780	+30	202.50	71,030	-2,850
Mar. 31...........	8,597.00	97,730	0	207.40	75,110	+4,080
Apr. 30...........	8,597.69	100,100	+2,320	212.56	79,560	+4,450
May 31...........	8,598.16	101,800	+1,700	212.95	79,900	+340
June 30...........	8,598.50	103,000	+1,200	212.90	79,850	-50
July 31...........	8,598.59	103,300	+300	212.91	79,860	+10
Aug. 31...........	8,598.45	102,800	-500	213.06	79,990	+130
Sept.30...........	8,597.52	99,570	-3,230	212.46	79,470	-520
WTR YR 1984....			+1,040			+1,870

a NGVD

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06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO

LOCATION.--Lat 39°12'33", long 105°16'02", in SE$\frac{1}{4}$NW$\frac{1}{4}$ sec.6, T.10 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 1,400 ft downstream from toe of Cheesman Dam and 3.8 mi southwestof Deckers.

DRAINAGE AREA.--1,752 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1949. WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 6,609.29 ft, National Geodetic Vertical Datum of 1929. Prior to May 14, 1956, at site 370 ft upstream at datum 0.50 ft, higher.

REMARKS.--Records excellent. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch, Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 40,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--60 years, 163 ft^3/s; 118,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft^3/s, Apr. 29, 1970, gage height, 13.4 ft, from floodmarks, by computation of outflow from Cheesman Lake; minimum daily determined, 1.6 ft^3/s, Apr. 8-14, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft^3/s at 1700 Aug. 22, gage height, 5.96 ft; minimum daily, 15 ft^3/s, Mar.18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362	99	71	140	140	149	31	362	847	724	898	787
2	360	94	71	140	140	113	31	371	871	746	958	746
3	360	94	71	140	140	97	31	385	863	757	922	699
4	321	87	71	140	140	99	44	402	863	739	746	667
5	238	84	71	140	140	99	45	429	874	717	728	642
6	216	84	73	140	140	99	45	462	871	692	670	608
7	174	84	73	140	138	97	45	465	882	663	695	548
8	144	86	71	140	140	97	45	441	962	632	735	522
9	144	86	71	140	140	97	111	429	1000	618	710	447
10	130	86	71	115	140	97	250	435	898	608	710	402
11	119	86	71	101	140	97	269	478	809	622	684	382
12	121	84	71	101	140	97	269	538	757	618	674	362
13	119	86	87	82	121	97	96	594	706	564	674	349
14	119	69	99	71	111	86	99	646	649	535	632	351
15	138	42	99	71	111	62	103	713	618	532	591	349
16	149	42	86	89	111	44	118	731	622	522	564	346
17	142	44	79	103	110	24	189	735	656	551	611	338
18	115	66	79	103	111	15	279	735	695	574	836	292
19	104	86	79	121	111	16	324	724	702	604	1100	264
20	104	86	84	140	110	16	379	699	692	706	1190	272
21	104	86	91	140	110	16	379	692	702	783	1190	279
22	104	84	119	140	110	20	327	720	699	779	1500	279
23	104	77	142	140	110	27	340	742	688	692	1560	272
24	106	74	144	140	111	26	371	768	706	625	1640	264
25	106	72	144	140	117	26	391	794	724	581	1710	252
26	37	91	144	140	134	26	388	847	746	496	1710	238
27	68	91	144	140	151	26	374	906	753	349	1600	233
28	89	81	144	140	166	26	362	898	728	240	1310	233
29	153	71	142	140	166	31	362	863	699	240	1110	242
30	149	71	142	140	---	31	365	843	710	279	966	257
31	126	---	142	140	---	31	---	832	---	802	867	---
TOTAL	4875	2373	3046	3897	3749	1884	6462	19679	22992	18590	30491	11922
MEAN	157	79.1	98.3	126	129	60.8	215	635	766	600	984	397
MAX	362	99	144	140	166	149	391	906	1000	802	1710	787
MIN	68	42	71	71	110	15	31	362	618	240	564	233
AC-FT	9670	4710	6040	7730	7440	3740	12820	39030	45600	36870	60460	23650

CAL YR 1983 TOTAL 100624 MEAN 276 MAX 1200 MIN 14 AC-FT 199600
WTR YR 1984 TOTAL 129960 MEAN 355 MAX 1710 MIN 15 AC-FT 257800

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06706000 NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, CO

LOCATION.--Lat 39°27'26", long 105°39'29", in NW¼ sec.10, T.7 S., R.74 W., Park County, Hydrologic Unit 10190002, on left bank at Grant, 1,550 ft downstream from Geneva Creek, and 1.3 mi downstream from east portal of Harold D. Roberts tunnel.

DRAINAGE AREA.--127 mi^2.

PERIOD OF RECORD.--July 1908 to November 1913 (published as "at Cassells"), June 1942 to current year. Monthly discharge only for some periods, published in WSP 1310. December 1913 to March 1918, equivalent records may be obtained by summation of flow of North Fork South Platte River at Grant (above Geneva Creek) and Geneva Creek at Grant.

REVISED RECORDS.--WSP 956: Drainage area at site at Cassells. WSP 1116: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,560.81 ft, National Geodetic Vertical Datum of 1929, adjustment of 1960. See WSP 1710 or 1730 for history of changes prior to July 23, 1948. July 23, 1948, to Nov. 15, 1968, water-stage recorder at site 50 ft downstream at datum 3.49 ft, lower.

REMARKS.--Records excellent. Small diversions above station for irrigation of about 200 acres. Diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--47 years (water years 1909-13, 1943-84), 70.5 ft^3/s; 51,080 acre-ft/yr, adjusted for inflow from Harold D. Roberts tunnel since 1964.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 990 ft^3/s, June 7, 8, 1912, gage height, 3.30 ft, site and datum then in use, from rating curve extended above 530 ft^3/s; maximum gage height, 4.72 ft, site and datum then in use, Feb. 11, 1952 (backwater from ice); minimum daily discharge, 6.5 ft^3/s, Nov. 27, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 515 ft^3/s at 2030 May 24, gage height, 1.84 ft; minimum daily, 14 ft^3/s, Feb. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	37	31	45	25	18	21	24	346	359	202	188
2	54	37	41	44	23	18	21	26	345	326	188	174
3	54	36	40	43	21	20	20	24	333	309	170	166
4	54	36	39	45	21	18	19	26	320	287	166	154
5	54	34	37	46	19	16	19	28	309	270	170	146
6	49	36	36	44	20	17	20	27	270	255	215	130
7	47	34	38	44	18	18	22	24	287	245	179	138
8	54	33	40	44	16	19	23	27	250	240	166	138
9	52	32	40	43	16	20	24	39	225	255	162	124
10	47	31	41	38	17	21	24	52	206	287	154	115
11	47	35	38	39	18	19	24	68	206	240	138	112
12	47	37	38	36	20	20	24	85	210	220	142	109
13	47	36	36	34	18	21	22	100	240	210	142	106
14	47	33	34	32	17	22	23	112	320	206	134	103
15	44	32	32	30	17	22	22	127	320	202	134	103
16	42	34	30	27	16	21	24	146	326	184	130	100
17	44	36	32	24	16	20	30	166	309	166	138	94
18	45	38	30	18	14	21	33	166	309	158	220	88
19	44	37	33	19	14	19	31	146	309	146	192	88
20	41	36	36	20	16	21	27	179	309	154	210	94
21	41	38	28	21	18	23	23	220	320	146	235	88
22	41	37	24	23	20	25	22	282	326	138	245	85
23	41	36	26	24	18	20	24	340	320	138	215	79
24	39	37	24	24	17	23	30	427	314	146	250	76
25	39	40	24	25	18	25	31	455	314	179	265	76
26	37	39	30	25	18	23	30	392	304	235	265	73
27	37	38	32	24	16	25	26	372	304	202	220	70
28	39	38	30	26	18	22	25	352	298	206	206	82
29	37	39	36	27	18	19	23	346	314	210	197	82
30	37	37	42	25	---	21	24	359	326	292	188	82
31	37	---	46	25	---	20	---	346	---	282	188	---
TOTAL	1392	1079	1064	984	523	637	731	5483	8890	6893	5826	3263
MEAN	44.9	36.0	34.3	31.7	18.0	20.5	24.4	177	296	222	188	109
MAX	54	40	46	46	25	25	33	455	346	359	265	188
MIN	37	31	24	18	14	16	19	24	206	138	130	70
AC-FT	2760	2140	2110	1950	1040	1260	1450	10880	17630	13670	11560	6470

CAL YR 1983 TOTAL 33876 MEAN 92.8 MAX 555 MIN 12 AC-FT 67190
WTR YR 1984 TOTAL 36765 MEAN 100 MAX 455 MIN 14 AC-FT 72920

06709500 PLUM CREEK NEAR LOUVIERS, CO

LOCATION.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on downstream side of bridge on county road from U.S. Highway 85 to Louviers, 0.8 mi northeast of Louviers, 1.2 mi downstream from Indian Creek, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--302 mi².

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1730: 1958, drainage area at site 2.5 mi downstream. WSP 1918: 1957(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,585 ft, from topographic map. Prior to Feb. 12, 1957, at site 2.5 mi downstream, and Nov. 7, 1965, to Aug. 6, 1966, at site 2.2 mi downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum.

REMARKS.--Records poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 33.5 ft³/s; 24,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 154,000 ft³/s, June 16, 1965, gage height, 22.4 ft, from floodmarks, by slope-area measurement of peak flow; no flow at times in 1951-52, 1956-60, 1963-64.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base 220 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 25	1800	1,130	3.23	Aug. 17	2330	1,300	3.99
May 16	1600	2,570	4.12	Aug. 18	2130	1,270	3.99
July 3	1945	376	3.51	Aug. 24	1800	*2,830	4.17
Aug. 2	0800	221	3.25				

Minimum daily discharge, 13 ft³/s, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	27	23	22	45	40	50	355	270	73	62	30
2	22	27	23	22	45	42	62	338	190	44	105	30
3	20	27	23	22	45	47	36	366	235	39	43	28
4	16	27	23	22	45	26	64	376	164	39	47	24
5	16	27	23	22	45	23	93	386	184	34	50	30
6	19	27	23	22	45	27	96	408	207	34	57	29
7	20	27	21	22	45	23	131	450	169	36	60	28
8	22	27	21	22	45	27	256	418	139	65	42	32
9	22	27	21	22	45	36	321	439	96	57	42	30
10	19	27	21	22	45	32	346	564	114	46	55	32
11	13	27	21	22	45	42	428	758	114	44	62	32
12	15	27	21	22	45	33	355	902	109	49	42	30
13	15	27	21	22	45	42	376	1090	118	36	32	36
14	18	27	21	22	45	47	338	1320	122	34	30	36
15	22	27	21	22	45	72	312	1930	105	34	30	45
16	20	27	21	22	45	80	346	2160	139	31	29	45
17	18	27	21	22	45	69	366	1660	118	31	101	45
18	17	27	21	22	45	64	376	1320	102	31	220	42
19	15	27	21	22	45	60	376	1070	109	26	86	30
20	15	27	19	22	45	60	450	902	122	52	50	35
21	17	27	19	22	45	60	355	830	80	52	67	32
22	16	27	19	22	45	77	346	725	105	27	55	27
23	14	27	19	22	45	62	397	635	99	52	33	23
24	15	27	19	22	45	45	590	564	109	50	244	24
25	15	27	19	22	45	57	758	525	102	55	67	28
26	15	27	19	22	45	69	551	439	109	64	72	29
27	16	27	19	22	45	69	428	397	83	55	50	26
28	14	27	19	22	45	47	408	330	72	67	64	28
29	17	27	19	22	36	48	408	312	54	57	47	29
30	17	27	19	22	---	42	386	287	62	38	33	29
31	17	---	19	22	---	52	---	235	---	72	32	---
TOTAL	535	810	639	682	1296	1520	9805	22491	3801	1424	2009	944
MEAN	17.3	27.0	20.6	22.0	44.7	49.0	327	726	127	45.9	64.8	31.5
MAX	22	27	23	22	45	80	758	2160	270	73	244	45
MIN	13	27	19	22	36	23	36	235	54	26	29	23
AC-FT	1060	1610	1270	1350	2570	3010	19450	44610	7540	2820	3980	1870

CAL YR 1983 TOTAL 46676.6 MEAN 128 MAX 1000 MIN 1.5 AC-FT 92580
WTR YR 1984 TOTAL 45956.0 MEAN 126 MAX 2160 MIN 13 AC-FT 91150

NOTE.--NO GAGE-HEIGHT RECORD OCT. 29 TO DEC. 5, DEC. 20 TO FEB. 28.

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06709600 CHATFIELD LAKE NEAR LITTLETON, CO

LOCATION.--Lat 39°33'26", long 105°03'27", in NW¼SE¼ sec.1, T.6 S., R.69 W., Jefferson County, Hydrologic Unit 10190002, near left end of dam on South Platte River at mouth of Plum Creek and 4.7 mi southwest of courthouse in Littleton.

DRAINAGE AREA.--3,018 mi².

PERIOD OF RECORD.--Contents, May 1975 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earthfill dam. Storage began May 29, 1975. Capacity, 235,000 acre-ft at elevation 5,500 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records furnished by U.S. Army, Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,690 acre-ft, May 26, 1980, elevation, 5,447.58 ft; no contents prior to May 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,340 acre-ft, Aug. 26, elevation, 5,435.76 ft; minimum, 20,860 acre-ft, May 4, elevation, 5,427.56 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1200, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,431.05	25,370	-
Oct. 31	5,431.74	26,330	+960
Nov. 30	5,432.79	27,820	+1,490
Dec. 31	5,432.14	26,900	-920
CAL YR 1983			-880
Jan. 31	5,432.16	26,920	+20
Feb. 29	5,431.97	26,650	-270
Mar. 31	5,431.73	26,320	-330
Apr. 30	5,430.34	24,410	-1,910
May 31	5,431.74	26,330	+1,920
June 30	5,431.83	26,460	+130
July 31	5,429.85	23,760	-2,700
Aug. 31	5,432.74	27,750	+3,990
Sept. 30	5,432.09	26,820	-930
WTR YR 1984			+1,450

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO

LOCATION.--Lat 39°37'08", long 105°01'07", in NE¼ sec.17, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on left bank 200 ft downstream from Crestline Ave. Bridge at Littleton, 3.1 mi upstream from Bear Creek, and 6.3 mi downstream from Chatfield Dam.

DRAINAGE AREA.--3,069 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,304.36 ft, National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 23, 1948, nonrecording gage on bridge 200 ft upstream at datum 1.00 ft, higher. Nov. 23, 1948, to Sept. 30, 1951, water-stage recorder at present site at datum 1.00 ft, higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Flow regulated by Chatfield Dam since May 29, 1975 (station 06709600).

AVERAGE DISCHARGE.--33 years (water years 1942-74), 234 ft³/s; 169,500 acre-ft/yr, prior to completion of Chatfield Dam: 9 years (water years 1976-84), 267 ft³/s; 193,400 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 110,000 ft³/s, June 16, 1965, gage height, 15.45 ft, from floodmarks, estimated from contracted-opening and flow-over-road measurement of peak flow at point 1.6 mi, downstream and slope-area measurement of peak flow on Plum Creek at point 12.7 mi, upstream; minimum daily, 7.2 ft³/s, Oct. 2, 1956. Stage and discharge of the flood of June 16, 1965, are the greatest since at least 1894.

EXTREMES FOR CURRENT YEAR --Maximum discharge, 2,980 ft³/s at 1745 May 14, gage height, 5.20 ft; minimum daily, 35 ft³/s, Oct. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	48	56	94	139	79	163	1230	903	521	87	1710
2	46	50	52	94	139	79	169	2350	1470	762	450	1630
3	46	50	146	94	124	81	166	2340	1550	947	993	1500
4	46	50	234	97	108	83	166	1930	1430	836	1000	1210
5	47	48	185	109	104	123	163	1540	1200	670	744	974
6	57	47	182	114	106	177	163	1580	1220	545	661	982
7	57	45	231	114	104	139	208	1560	1350	454	826	840
8	53	47	165	115	80	87	199	1840	1270	443	804	748
9	51	50	57	112	80	89	314	1910	1040	449	581	706
10	50	58	54	110	80	88	604	1640	940	453	533	538
11	50	80	52	110	79	86	926	1560	1310	479	601	456
12	42	82	51	109	78	92	977	1370	1160	511	522	509
13	46	82	50	104	89	105	818	2000	929	880	465	572
14	54	82	50	96	109	105	707	2760	697	934	479	640
15	45	74	52	96	134	105	605	2920	623	833	451	775
16	45	59	56	108	148	105	464	2940	571	602	489	930
17	44	57	49	84	124	104	395	2800	779	353	490	920
18	44	68	57	83	95	108	786	2400	984	436	576	893
19	45	67	57	83	94	185	1110	2080	974	582	1160	656
20	43	60	120	83	93	302	1180	2070	931	304	2040	408
21	43	60	190	76	90	304	1210	1980	878	470	2460	340
22	44	55	190	60	81	312	1240	1980	832	470	2420	77
23	45	56	140	45	80	319	1650	1980	781	470	2500	63
24	44	55	110	42	91	311	1770	1540	741	442	2720	118
25	37	54	105	42	109	315	1520	1340	743	177	2710	200
26	36	56	105	42	112	262	1760	1710	786	149	2690	202
27	35	61	100	60	111	204	1830	1700	608	146	2770	183
28	35	56	100	133	111	200	1680	1330	632	145	2820	153
29	36	54	83	137	97	199	1670	890	583	148	2750	139
30	37	54	94	137	---	185	1410	695	500	144	2350	136
31	42	---	94	135	---	165	---	556	---	133	1960	---
TOTAL	1391	1765	3267	2918	2989	5098	26023	56521	28415	14888	42102	19208
MEAN	44.9	58.8	105	94.1	103	164	867	1823	947	480	1358	640
MAX	57	82	234	137	148	319	1830	2940	1550	947	2820	1710
MIN	35	45	49	42	78	79	163	556	500	133	87	63
AC-FT	2760	3500	6480	5790	5930	10110	51620	112100	56360	29530	83510	38100

CAL YR 1983	TOTAL	225855	MEAN	619	MAX	2840	MIN	17	AC-FT	448000
WTR YR 1984	TOTAL	204585	MEAN	559	MAX	2940	MIN	35	AC-FT	405800

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06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURES: April 1970 to current year.

INSTRUMENTATION.--Temperature recorder since April 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 692 micromhos Dec. 4, 1981; minimum daily, 118 micromhos Dec. 3, 1979.
WATER TEMPERATURES: Maximum, 32°C June 12, 1979; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 512 micromhos Nov. 21, Dec. 1; minimum daily, 217 micromhos May 17.
WATER TEMPERATURES: Maximum, 25.5°C July 28, 29; minimum, 0.0°C Dec. 19-26, 28-30, Jan. 16, 18-20, 25, 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM- - TANEOUS (CFS)	SPE- CIFIC DUCT- ANCE (UMHOS)	(STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BID- ITY (NTU)	DIS- SOLVED (MG/L)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
NOV										
17...	1300	58	500	8.9	11.0	3.4	13.1	K43	K72	170
FEB										
02...	1100	138	406	8.0	3.5	7.0	12.3	27	340	140
MAR										
21...	1300	306	380	7.6	7.0	12	11.1	K20	K23	130
MAY										
22...	1230	1980	197	7.9	15.0	110	8.3	K69	220	66
JUL										
18...	1345	243	360	8.4	23.0	6.7	7.7	K34	K120	130
SEP										
19...	1400	473	400	7.6	20.0	4.7	8.7	49	140	140

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV											
17...	51	47	12	29	27	1	2.5	116	68	29	1.2
FEB											
02...	34	40	9.7	25	28	1	2.7	106	58	25	1.1
MAR											
21...	34	38	8.8	22	26	.9	2.4	98	49	20	1.2
MAY											
22...	16	19	4.5	12	27	.7	2.4	50	23	11	1.3
JUL											
18...	37	34	9.8	25	30	1	2.4	88	45	28	.90
SEP											
19...	7	39	11	27	29	1	2.9	136	54	31	1.1

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV											
17...	10	279	270	.38	44	.360	.090	.80	.020	<.010	.040
FEB											
02...	11	248	240	.34	92	.700	.070	.30	<.010	.010	<.010
MAR											
21...	12	218	210	.30	180	.560	.030	.50	.090	<.010	.020
MAY											
22...	14	116	120	.16	620	.160	.030	1.0	.020	.020	.030
JUL											
18...	7.9	206	210	.28	135	<.100	.120	.30	.020	.010	.150
SEP											
19...	11	248	260	.34	317	.220	.030	.50	.020	.010	<.010

K BASED ON NON-IDEAL COLONY COUNT.

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 17...	1300	20	1	65	<.5	<1	<1	<3	1	22	<1
MAR 21...	1300	10	<1	62	<.5	<1	1	<3	4	20	1
MAY 22...	1230	170	<1	38	<1	3	<1	<3	8	160	5
SEP 19...	1400	20	<1	<2	<1	<1	1	<3	5	16	4

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 17...	25	34	.2	10	5	2	390	<6	<1	6
MAR 21...	16	31	<.1	<10	<1	<1	320	<6	<1	15
MAY 22...	14	9	<.1	<10	<1	<1	140	<6	<1	21
SEP 19...	16	24	<.1	<10	3	1	330	<6	<1	12

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 17...	1300	58	9	1.4	--
FEB 02...	1100	138	21	7.8	--
MAR 21...	1300	306	29	24	--
MAY 22...	1230	1980	153	818	67
JUL 18...	1345	243	11	7.2	--
SEP 19...	1400	473	9	11	--

06710000 SOUTH PLATTE RIVER AT LITTLETON, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	479	502	512	437	441	457	452	304	265	381	336	359
2	500	496	506	433	441	457	446	303	235	381	330	358
3	496	495	507	436	444	461	444	303	235	379	326	357
4	493	493	509	439	445	458	447	303	234	380	334	376
5	471	494	494	442	447	457	452	233	233	380	329	365
6	397	494	489	444	448	456	452	235	235	381	325	356
7	495	493	486	445	445	455	448	235	237	381	327	361
8	384	492	488	441	447	457	447	235	240	403	326	360
9	384	492	499	443	445	457	443	234	240	408	327	359
10	384	492	495	443	---	458	443	235	239	408	328	359
11	417	500	502	442	447	459	446	236	247	410	380	369
12	415	497	495	442	446	458	442	236	241	408	388	368
13	414	507	496	443	447	457	445	219	241	408	384	367
14	414	506	495	444	447	455	354	219	242	410	380	368
15	414	506	497	447	447	458	350	219	239	411	390	366
16	408	505	496	447	453	457	348	218	238	410	392	369
17	403	508	478	455	449	458	346	217	239	409	389	372
18	496	505	469	458	449	459	350	218	239	409	390	372
19	495	506	475	457	450	461	346	218	237	410	393	372
20	410	504	496	456	450	463	350	219	270	410	395	375
21	497	512	479	458	450	459	353	259	268	395	393	350
22	480	511	469	458	449	465	355	260	270	397	393	348
23	482	509	469	457	451	462	353	259	268	395	386	346
24	487	511	467	456	450	463	358	259	267	395	385	342
25	479	510	473	456	450	463	357	259	268	395	386	347
26	484	509	474	455	451	460	358	259	265	395	385	349
27	464	508	472	455	449	462	306	259	266	383	386	349
28	435	508	469	458	449	459	305	259	266	384	385	348
29	489	507	467	438	450	463	309	260	271	387	390	349
30	487	507	468	445	---	461	305	270	275	384	390	350
31	483	---	463	437	---	459	---	269	---	386	400	---
MEAN	454	503	486	447	448	459	387	249	250	396	369	360

WTR YR 1984 MEAN 401 MAX 512 MIN 217

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	13.0	9.0	4.0	.5	3.0	1.0	4.0	1.5	7.0	2.5
2	---	---	12.5	9.0	4.0	1.0	3.0	.5	4.0	2.0	8.0	4.0
3	---	---	13.0	8.5	4.0	1.0	3.5	1.0	3.5	2.0	6.0	4.0
4	---	---	12.5	8.0	3.5	2.0	4.0	1.5	4.5	2.0	6.5	3.5
5	---	---	12.5	8.0	3.0	1.5	4.0	2.0	5.0	1.5	6.0	2.0
6	---	---	13.0	8.5	3.0	1.5	4.0	1.5	5.0	1.5	7.0	3.0
7	---	---	13.0	8.0	3.0	2.0	4.0	1.5	4.5	1.5	6.5	3.5
8	---	---	10.0	5.5	4.5	2.0	4.0	1.5	4.5	2.5	8.0	3.0
9	---	---	9.5	5.5	4.0	2.0	2.5	1.5	5.0	1.5	6.5	4.0
10	---	---	10.0	5.5	4.5	2.0	3.0	1.0	5.5	2.0	8.0	3.0
11	---	---	10.0	7.0	4.5	2.0	2.5	1.5	5.0	2.5	7.0	4.0
12	---	---	10.0	7.0	4.0	2.0	3.0	1.5	4.5	1.5	8.0	4.0
13	---	---	9.5	7.0	3.5	2.0	2.0	1.0	5.5	2.0	8.5	4.0
14	---	---	9.0	7.0	3.5	1.5	1.5	.5	4.5	2.5	9.0	4.5
15	---	---	8.0	6.0	3.5	1.0	1.5	.5	5.0	2.5	9.0	5.0
16	---	---	8.0	6.0	3.0	.5	2.0	.0	4.5	2.0	6.0	5.0
17	---	---	9.0	5.5	1.5	1.0	.5	.5	3.5	2.0	8.5	4.0
18	---	---	7.0	4.0	2.0	.5	.0	.0	4.5	1.5	6.0	4.5
19	13.5	---	7.5	4.0	1.0	.0	.0	.0	4.5	1.0	8.5	4.5
20	12.0	9.0	8.0	4.0	.0	.0	.0	.0	5.0	1.0	7.0	4.5
21	13.0	8.5	6.0	4.0	.0	.0	1.0	1.0	6.0	1.5	7.0	4.5
22	13.5	8.5	4.0	4.0	.0	.0	2.5	2.5	6.5	2.0	5.0	4.0
23	14.0	9.0	5.5	3.0	.0	.0	2.0	2.0	6.0	2.0	6.0	4.0
24	13.0	9.0	5.5	2.0	.0	.0	3.0	3.0	5.5	2.0	7.5	4.5
25	12.5	8.5	7.5	3.5	.0	.0	3.0	.0	5.5	2.5	5.5	4.5
26	13.0	8.0	5.0	1.5	1.0	.0	3.5	1.5	4.0	2.0	8.0	4.5
27	13.5	8.0	1.5	.5	1.0	1.0	3.0	.0	4.0	1.5	6.0	4.5
28	12.5	9.0	3.5	1.0	2.0	.0	3.5	1.0	5.0	1.5	7.5	4.0
29	12.0	8.0	3.0	1.5	.0	.0	3.5	1.5	6.0	2.0	8.0	4.5
30	12.5	9.0	3.0	1.0	2.0	.0	3.5	1.0	---	---	5.5	4.5
31	12.5	8.5	---	---	3.0	1.5	4.0	1.0	---	---	7.5	4.5
MONTH	14.0	8.0	13.0	.5	4.5	.0	4.0	.0	6.5	1.0	9.0	2.0

PLATTE RIVER BASIN

06710000 SOUTH PLATTE RIVER AT LITTLETON. CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	9.0	7.0	16.0	15.0	21.0	18.0	25.0	19.5	19.0	18.5
2	5.0	4.0	8.5	7.0	16.5	15.0	21.0	18.5	21.5	19.0	19.5	18.0
3	5.5	4.0	9.5	7.5	17.5	16.0	20.5	18.5	22.0	20.0	19.5	18.0
4	8.5	3.5	9.5	8.5	17.0	15.0	21.0	18.5	21.5	20.0	19.5	18.0
5	8.5	4.5	9.0	8.5	17.5	15.5	21.5	18.5	22.5	20.0	20.0	18.0
6	8.5	5.0	9.5	8.5	16.5	15.0	22.0	18.5	21.0	20.0	20.0	18.0
7	8.0	5.5	10.0	8.5	16.5	15.5	21.5	18.5	21.5	20.0	19.0	17.5
8	10.0	6.0	10.0	8.5	16.5	15.0	21.0	18.5	22.0	20.0	19.5	17.0
9	9.0	6.5	10.5	8.5	17.0	15.0	21.5	18.5	22.0	20.0	19.5	17.5
10	8.0	6.5	11.0	9.0	16.0	14.5	22.0	19.0	22.0	19.5	20.5	17.5
11	7.5	6.5	12.0	9.0	16.5	15.0	23.0	19.0	22.5	20.0	18.0	17.0
12	7.5	6.5	12.5	10.5	18.5	15.0	25.0	19.0	20.0	19.5	20.0	17.0
13	8.0	6.5	12.5	10.5	17.5	15.0	22.0	20.0	22.5	19.5	19.0	17.0
14	8.0	7.0	13.5	12.0	18.0	15.0	21.5	20.0	22.5	20.0	17.5	17.0
15	8.5	7.0	13.0	12.0	18.0	15.0	22.0	20.5	22.5	20.0	18.0	17.0
16	9.5	7.0	12.5	12.0	17.5	15.5	23.0	20.0	22.5	19.5	18.0	16.5
17	9.5	7.5	13.0	12.0	17.5	15.0	24.0	19.5	23.5	20.0	18.0	16.5
18	8.0	8.0	13.0	12.5	18.0	15.5	24.0	19.0	22.0	20.0	18.0	16.5
19	8.5	8.0	13.5	12.5	18.0	16.5	24.0	20.5	22.0	20.5	19.5	16.5
20	8.5	7.5	14.0	12.5	18.5	16.5	23.5	20.0	21.5	20.0	19.0	16.5
21	7.5	7.0	14.5	13.0	19.5	16.5	23.5	20.5	20.5	20.0	18.5	16.5
22	8.0	7.0	---	13.0	19.0	16.5	23.5	20.5	20.5	19.5	20.0	16.0
23	8.5	7.5	---	---	17.0	16.5	23.5	20.5	20.5	19.5	20.0	15.0
24	9.0	7.0	---	---	19.0	16.5	23.5	21.0	20.0	19.0	16.5	14.5
25	8.5	7.0	---	---	18.5	16.5	25.0	21.0	19.5	18.5	17.0	14.0
26	8.0	7.5	---	---	19.0	16.5	22.5	20.5	19.5	18.5	15.5	13.5
27	8.0	7.0	---	---	19.0	17.5	25.0	19.5	19.5	19.0	17.0	13.5
28	7.5	7.0	---	---	20.0	17.0	25.5	20.0	19.5	18.5	12.0	11.0
29	8.0	7.0	---	---	21.0	17.5	25.5	20.0	19.5	18.5	16.0	11.5
30	8.0	7.0	18.0	15.5	21.0	18.0	25.0	20.0	19.5	18.5	16.5	11.5
31	---	---	16.5	15.0	---	---	23.0	20.0	19.5	18.5	---	---
MONTH	10.0	3.5	18.0	7.0	21.0	14.5	25.5	18.0	25.0	18.5	20.5	11.0
YEAR	25.5	.0										

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06710500 BEAR CREEK AT MORRISON, CO

LOCATION.--Lat 39°39'11", long 105°11'43", in SE¼SW¼ sec.35, T.4 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at Morrison, 180 ft upstream from bridge on State Highway 8 and 0.2 mi upstream from Mount Vernon Creek.

DRAINAGE AREA.--164 mi^2.

PERIOD OF RECORD.--Streamflow records, September 1887 to September 1891, May 1895 to December 1901, February 1902 (gage heights only), October 1919 to current year. No winter records for water years 1888-90, 1896, 1898, 1900. Monthly discharge only for some periods, published in WSP 1310. Published as "near Morrison" 1900-1902, as "at Starbuck" 1919-28, and as "at Idledale" 1929-34. Water-quality data available, October 1976 to September 1981.

REVISED RECORDS.--WSP 976: 1942. WSP 1310: 1888, 1890-91, 1898, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,780.43 ft, National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1934. Oct. 1, 1934, to Oct. 10, 1961, water-stage recorder at site 80 ft downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Small diversions for irrigation of about 1,000 acres above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--69 years (water years 1891, 1897, 1899, 1901, 1920-84), 53.7 ft^3/s; 38,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft^3/s, estimated, July 24, 1896; minimum daily, 0.8 ft^3/s, Nov. 26, 1939, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 26	1430	412	5.65	Aug. 20	2230	465	5.78
Aug. 1	2000	399	5.58	Aug. 20	0500	* 576	5.99

Minimum daily discharge, 14 ft^3/s, Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	30	19	22	20	19	37	146	151	85	177	205
2	47	30	20	22	20	19	36	153	142	78	235	202
3	46	30	22	24	20	19	36	153	132	73	151	190
4	45	29	24	25	19	19	37	166	132	71	138	168
5	43	29	26	25	20	18	38	168	126	70	135	155
6	43	32	24	25	20	19	45	173	121	66	153	138
7	42	32	28	25	20	20	54	166	121	67	149	125
8	43	33	28	25	20	22	62	155	105	65	134	126
9	45	28	30	25	20	23	70	159	100	70	125	114
10	43	25	30	25	20	21	66	185	96	77	121	110
11	43	28	30	25	20	23	81	238	92	68	112	107
12	43	30	29	25	18	22	67	288	90	60	107	102
13	43	33	28	25	19	25	73	329	122	57	107	97
14	41	31	27	23	20	32	67	337	121	60	103	97
15	37	22	27	22	20	34	70	358	98	62	117	97
16	36	30	25	22	19	32	76	354	94	62	108	92
17	37	32	25	24	19	25	90	313	91	56	112	86
18	37	32	23	20	19	30	98	302	96	53	185	80
19	38	28	21	20	17	25	97	288	96	49	195	77
20	35	23	20	20	18	28	110	266	90	50	233	77
21	33	31	16	20	19	32	86	294	88	53	363	76
22	32	27	14	22	21	35	110	294	85	49	345	71
23	30	24	20	24	20	30	136	274	85	48	317	70
24	30	24	20	24	19	29	178	266	84	58	321	67
25	28	22	20	24	18	30	208	266	82	65	381	67
26	29	24	22	24	19	33	226	242	81	209	490	68
27	30	24	24	24	17	38	200	217	77	112	390	65
28	29	22	22	22	15	30	180	188	76	141	345	72
29	28	22	18	22	16	37	160	173	71	175	309	77
30	30	20	18	20	---	42	140	166	73	155	260	82
31	30	---	20	20	---	38	---	157	---	136	235	---
TOTAL	1164	827	720	715	552	849	2934	7234	3018	2500	6653	3160
MEAN	37.5	27.6	23.2	23.1	19.0	27.4	97.8	233	101	80.6	215	105
MAX	48	33	30	25	21	42	226	358	151	209	490	205
MIN	28	20	14	20	15	18	36	146	71	48	103	65
AC-FT	2310	1640	1430	1420	1090	1680	5820	14350	5990	4960	13200	6270

CAL YR 1983 TOTAL 40420 MEAN 111 MAX 495 MIN 11 AC-FT 80170
WTR YR 1984 TOTAL 30326 MEAN 82.9 MAX 490 MIN 14 AC-FT 60150

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO

LOCATION.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on left bank just downstream from bridge on road to Fort Logan Mental Health Center, at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 mi upstream from mouth, and 2.1 mi west of city hall in Englewood.

DRAINAGE AREA.--260 mi².

PERIOD OF RECORD.--April to November 1914, March 1927 to current year. Monthly discharge only prior to October 1933, published in WSP 1310. Published as "at Sheridan Junction" 1934-41.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,295 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to Oct. 9, 1953. Oct. 9, 1953, to Aug. 6, 1969, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--Records good. Flow regulated by Bear Creek Lake since July 1979. Storage and diversions above station for irrigation of about 12,000 acres. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--57 years, 42.0 ft³/s; 30,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,150 ft³/s, May 7, 1969, gage height, 10.5 ft, present datum, from flood marks, from rating curve extended above 3,400 ft³/s; no flow, July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 890 ft³/s at 1630 Aug. 20, gage height, 4.91 ft; minimum daily, 24 ft³/s, Oct. 17, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	38	40	41	36	38	55	269	206	69	134	259
2	37	36	47	40	34	39	56	272	201	69	217	241
3	35	34	48	39	34	41	54	269	179	63	185	220
4	35	32	48	39	32	43	54	285	187	63	159	195
5	35	31	47	40	32	34	55	296	167	61	145	172
6	35	37	41	41	32	35	58	316	155	56	162	155
7	32	36	42	41	32	37	78	306	147	55	167	141
8	30	44	54	40	32	40	92	299	136	55	147	134
9	30	50	51	38	32	41	119	330	125	58	132	125
10	32	42	50	38	32	38	115	344	113	69	130	113
11	30	53	48	38	37	41	157	399	107	71	121	107
12	29	55	47	38	35	43	125	541	107	62	117	99
13	30	53	45	37	35	44	138	536	105	59	123	96
14	27	50	41	37	39	49	143	602	130	56	121	94
15	26	47	41	37	39	62	157	629	115	61	123	87
16	25	41	38	37	32	68	177	629	101	62	123	82
17	24	45	37	37	31	58	209	602	94	59	121	80
18	25	62	37	36	30	66	256	640	115	53	155	69
19	26	56	42	36	27	59	238	541	103	48	198	62
20	27	47	39	36	29	55	229	395	89	39	280	56
21	26	49	38	35	31	61	174	352	85	43	453	54
22	25	48	38	35	34	77	177	352	80	43	415	54
23	24	41	38	35	34	75	235	363	79	38	359	56
24	24	36	38	34	35	66	324	352	80	30	436	65
25	26	43	39	34	34	83	296	355	75	41	552	69
26	27	54	40	34	39	77	471	348	72	101	580	71
27	27	48	41	34	35	79	453	316	66	185	568	71
28	26	38	41	35	32	68	355	272	62	121	458	90
29	26	40	39	35	35	69	316	241	61	157	395	85
30	27	41	39	37	---	72	327	226	68	145	330	87
31	35	---	39	38	---	61	---	215	---	150	292	---
TOTAL	902	1327	1313	1152	971	1719	5693	11892	3410	2242	7898	3289
MEAN	29.1	44.2	42.4	37.2	33.5	55.5	190	384	114	72.3	255	110
MAX	39	62	54	41	39	83	471	640	206	185	580	259
MIN	24	31	37	34	27	34	54	215	61	30	117	54
AC-FT	1790	2630	2600	2280	1930	3410	11290	23590	6760	4450	15670	6520

CAL YR 1983 TOTAL 58431.6 MEAN 160 MAX 783 MIN 9.1 AC-FT 115900
WTR YR 1984 TOTAL 41808.0 MEAN 114 MAX 640 MIN 24 AC-FT 82930

BEST C PY AVAILABLE

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO

LOCATION.--Lat 39°39'54", long 105°00'13", in NW¼NE¼ sec.33, T.4 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on right bank, 0.3 mi downstream from Dartmouth Ave bridge at Englewood, 1.4 mi downstream from Bear Creek.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--February 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,250 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage and flood control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Flow regulated by Chatfield Dam since May 29, 1975 (station 06709600), and Bear Creek Dam since July 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,090 ft^3/s, Aug. 20, 1984, gage height, 5.25 ft; minimum daily, 28 ft^3/s, Feb. 11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,090 ft^3/s at 2215 Aug. 20, gage height, 5.25 ft; minimum daily, 52 ft^3/s, Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	85	128	170	216	139	246	1450	950	770	262	1760
2	110	82	128	165	216	135	268	2850	1580	912	690	1700
3	107	82	188	160	202	142	257	2840	1710	1140	1260	1560
4	104	76	334	150	175	150	252	2310	1570	1010	1280	1290
5	101	85	268	184	163	159	252	1820	1350	796	1130	1020
6	110	91	284	184	163	212	252	1940	1300	645	893	1040
7	117	79	328	175	163	197	312	1850	1470	533	1060	912
8	104	101	290	175	139	150	340	2150	1390	533	1000	830
9	101	121	154	163	124	167	450	2230	1150	548	762	796
10	98	110	139	154	124	142	715	1920	940	578	690	638
11	98	163	139	159	135	154	1080	1890	1380	592	754	526
12	85	167	132	159	124	159	1100	1720	1230	587	682	585
13	88	163	128	146	135	171	931	2480	1040	1010	622	608
14	101	159	114	139	184	175	812	3490	796	1110	615	698
15	82	150	121	140	230	193	722	3730	698	1010	615	830
16	76	121	124	138	226	193	608	3910	622	722	622	1020
17	76	121	107	132	188	184	548	3780	738	424	630	1000
18	76	193	135	130	159	207	884	3280	1010	482	754	970
19	79	184	150	130	146	240	1260	2950	1010	750	1190	736
20	76	135	190	130	142	369	1380	2570	960	630	2310	463
21	74	139	300	120	142	375	1410	2390	893	570	2840	418
22	76	124	310	95	132	431	1540	2510	846	548	2640	175
23	71	121	280	94	132	450	1960	2460	788	540	2690	159
24	66	110	230	79	139	399	2260	1950	770	512	3020	207
25	63	121	190	79	163	431	2000	1620	812	240	3120	301
26	63	135	180	79	180	381	2280	2060	990	268	3060	301
27	55	160	180	117	175	306	2300	2010	980	351	3140	290
28	57	145	180	207	171	290	2020	1650	912	328	3080	306
29	57	121	180	216	150	290	2020	1090	730	357	2930	290
30	52	117	170	212	---	301	1760	864	958	318	2440	279
31	76	---	170	212	---	257	---	690	---	345	2010	---
TOTAL	2616	3761	5951	4593	4738	7549	32219	70454	31573	19159	48791	21708
MEAN	84.4	125	192	148	163	244	1074	2273	1052	618	1574	724
MAX	117	193	334	216	230	450	2300	3910	1710	1140	3140	1760
MIN	52	76	107	79	124	135	246	690	622	240	262	159
AC-FT	5190	7460	11800	9110	9400	14970	63910	139700	62630	38000	96780	43060

WTR YR 1984 TOTAL 253112 MEAN 692 MAX 3910 MIN 52 AC-FT 502000

06712000 CHERRY CREEK NEAR FRANKTOWN, CO

LOCATION.--Lat 39°21'21", long 104°45'46", in NE¼ sec.15, T.8 S., R.66 W., Douglas County, Hydrologic Unit 10190003, on right bank 1.5 mi upstream from Russellville Gulch and 2.5 mi south of Franktown.

DRAINAGE AREA.--169 mi².

PERIOD OF RECORD.--November 1939 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,170 ft, from topographic map. See WSP 1730 for history of changes prior to Oct. 1, 1953.

REMARKS.--Records good except those for winter period, which are poor. Many small diversions above station for irrigation of about 800 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--44 years (water years 1941-84), 9.50 ft³/s; 6,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft³/s, Aug. 5, 1945, gage height, 4.91 ft, site and datum then in use, by float measurement; minimum daily, 0.20 ft³/s, July 13, 1946, Sept. 30, Oct. 1, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 3, 1933, caused by Castlewood Dam failure, exceeded all other observed floods at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 10	2100	915	5.83	Aug. 4	1745	*2,450	7.34
Apr. 24	1900	1,410	6.38	Aug. 18	2000	239	4.45
June 29	1715	477	5.04	Aug. 25	1915	361	4.76
Aug. 1	2200	1,430	6.39				

Minimum daily discharge, 8.0 ft³/s, Dec. 17-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	13	14	10	12	11	31	86	34	16	99	30
2	8.3	13	14	10	13	11	27	78	39	15	56	28
3	8.3	13	14	10	13	11	18	76	55	18	30	25
4	8.5	13	14	10	13	11	15	69	71	19	238	22
5	8.5	12	14	10	14	12	30	66	54	16	36	21
6	8.5	12	14	10	15	14	62	71	45	17	21	19
7	8.5	12	14	12	15	15	86	73	38	18	19	18
8	8.5	12	14	13	15	17	175	66	34	17	17	17
9	8.7	12	14	13	15	18	180	59	34	16	17	16
10	8.9	12	14	13	15	19	368	56	31	16	23	16
11	9.0	12	14	13	15	20	344	54	31	16	17	16
12	9.2	12	14	13	15	21	152	53	30	15	15	16
13	9.6	12	14	13	15	23	116	52	27	14	14	16
14	9.9	11	14	12	15	33	88	66	25	14	14	21
15	10	10	10	11	14	44	81	54	25	14	14	19
16	10	9.9	9.0	10	14	47	78	48	28	14	15	20
17	10	9.9	8.0	9.0	14	41	83	44	36	14	16	23
18	11	11	8.0	9.0	14	47	90	42	30	14	37	19
19	12	12	8.0	9.0	14	33	84	43	85	14	37	17
20	12	12	8.0	9.0	13	37	108	43	34	13	25	16
21	12	14	8.0	9.0	13	51	62	41	27	14	36	16
22	13	14	8.0	9.0	13	55	78	38	25	14	37	15
23	13	14	8.0	10	12	42	148	37	22	12	43	14
24	13	14	9.0	10	12	39	498	35	23	11	39	14
25	14	14	9.0	11	11	44	535	34	21	9.6	54	14
26	14	14	9.0	11	11	38	233	35	23	11	49	14
27	14	14	9.0	11	11	38	114	35	24	15	50	14
28	14	14	9.0	11	11	30	86	34	20	15	59	15
29	14	14	9.0	11	11	37	81	32	19	13	47	17
30	14	14	9.0	11	---	34	84	30	17	12	40	17
31	13	---	9.0	11	---	31	---	29	---	16	34	---
TOTAL	335.7	375.8	343.0	334.0	388	924	4135	1579	1007	452.6	1248	545
MEAN	10.8	12.5	11.1	10.8	13.4	29.8	138	50.9	33.6	14.6	40.3	18.2
MAX	14	14	14	13	15	55	535	86	85	19	238	30
MIN	8.3	9.9	8.0	9.0	11	11	15	29	17	9.6	14	14
AC-FT	666	745	680	662	770	1830	8200	3130	2000	898	2480	1080

CAL YR 1983	TOTAL	11289.8	MEAN	30.9	MAX	684	MIN	4.4	AC-FT	22390
WTR YR 1984	TOTAL	11667.1	MEAN	31.9	MAX	535	MIN	8.0	AC-FT	23140

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO MAR. 12.

06712990 CHERRY CREEK LAKE NEAR DENVER, CO

LOCATION.--Lat 39°09'03", long 104°51'13", in NW¼NE¼ sec.2, T.55 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, 0.8 mi southwest from intersection of Interstate Highway 225 and Parker Road, 0.2 mi from right end of dam, 1.6 mi northwest of intersection of Parker and Airline Roads, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--Contents, October 1960 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earthfill dam. Storage began May 15, 1957; dam completed in June 1950. Capacity, 92,820 acre-ft, at elevation 5,598.00 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records furnished by U.S. Army, Corps of Engineers. Capacity revised on basis of new capacity table dated January 1975.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,120 acre-ft, June 3, 1973, elevation, 5,565.82 ft; minimum, 9,980 acre-ft, Nov. 23, 24, 1978, elevation, 5,545.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,380 acre-ft Mar. 23, elevation, 5,553.50 ft; minimum, 13,040 acre-ft, Sept. 8, elevation, 5,549,78 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1200, WATER YEAR OCTOBER 19[illegible] TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,551.09	14,170	-
Oct. 31	5,551.00	14,090	-80
Nov. 30	5,551.69	14,710	+620
Dec. 31	5,552.51	15,450	+740
CAL YR 1983		-	+3,900
Jan. 31	5,553.10	16,000	+550
Feb. 29	5,551.12	14,200	-1,800
Mar. 31	5,552.11	15,080	+880
Apr. 30	5,552.54	15,480	+400
May 31	5,549.90	13,140	-2,340
June 30	5,551.92	14,910	+1,770
July 31	5,550.15	13,360	-1,550
Aug. 31	5,552.90	15,810	+2,450
Sept. 30	5,550.29	13,480	-,2330
WTR YR 1984			-690

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO

LOCATION.--Lat 39°39'12", long 104°51'41", in SW¼SW¼ sec.35, T.4 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, on right bank 2,000 ft downstream from Cherry Creek Dam, 2.2 mi southeast of Sullivan, 9 mi southeast of Civic Center in Denver, and 11 mi upstream from mouth.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--June 1950 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,490.51 ft, (Corps of Engineers bench mark).

REMARKS.--Records good. Flow regulated by Cherry Creek Lake (see elsewhere in this report). Diversions above station for irrigation of about 1,800 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 5.42 ft³/s; 3,930 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s July 31, 1956, gage height, 6.07 ft; no flow most of time since May 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known, 34,000 ft³/s Aug. 3, 1933, by slope-area measurement near present site (Castlewood Dam failure).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 271 ft³/s at 1320 Aug. 31, gage height, 4.47 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	188	188	18	.00	1.4	182
2	.00	.00	.00	.00	72	.00	185	188	.00	.00	1.2	182
3	.00	.00	.00	.00	116	.00	182	188	.00	.00	1.2	182
4	.00	.00	.00	.00	118	.00	130	185	.00	.00	1.2	182
5	.00	.00	.00	.00	118	.00	101	182	.00	.00	1.4	182
6	.00	.00	.00	.00	120	.00	101	179	.00	40	1.8	182
7	.00	.00	.00	.00	138	.00	101	179	.00	70	1.6	87
8	.00	.00	.00	.00	150	.00	99	179	.00	70	1.4	.00
9	.00	.00	.00	.00	148	.00	99	182	.00	70	1.4	.00
10	.00	.00	.00	.00	142	.00	99	182	.00	70	1.4	.00
11	.00	.00	.00	.00	142	.00	99	179	.00	70	1.4	.00
12	.00	.00	.00	.00	142	.00	159	179	.00	72	1.4	.00
13	.00	.00	.00	.00	142	.00	197	179	.00	75	1.4	.79
14	.00	.00	.00	.00	145	.00	197	99	.00	75	1.4	.00
15	.00	.00	.00	.00	57	.00	194	44	.00	75	1.4	.00
16	.00	.00	.00	.00	.00	.00	194	44	.00	77	1.2	.00
17	.00	.00	.00	.00	.00	.00	191	44	.00	70	1.4	.00
18	.00	.00	.00	.00	.00	.00	191	44	.00	70	1.4	.00
19	.00	.00	.00	.00	.00	.00	191	44	.00	70	1.1	.00
20	.00	.00	.00	.00	.00	.00	191	45	.00	69	2.0	.00
21	.00	.00	.00	.00	.00	.00	188	45	.00	46	.91	.00
22	.00	.00	.00	.00	.00	71	191	45	.00	1.1	.75	.00
23	.00	.00	.00	.00	.00	118	188	45	.00	1.4	.75	.00
24	.00	.00	.00	.00	.00	120	191	45	.00	4.3	1.1	5.0
25	.00	.00	.00	.00	.00	120	191	44	.00	1.8	.91	.30
26	.00	.00	.00	.00	.00	132	191	44	.00	1.8	.91	.30
27	.00	.00	.00	.00	.00	140	191	44	.00	1.6	1.1	.37
28	.00	.00	.00	.00	.00	176	188	44	.00	1.6	1.2	.25
29	.00	.00	.00	.00	.00	194	188	44	.00	1.6	92	.20
30	.00	.00	.00	.00	---	191	188	44	.00	1.8	182	.20
31	.00	---	.00	.00	---	191	---	44	---	1.6	185	---
TOTAL	.00	.00	.00	.00	1750.00	1453.00	4984	3221	18.00	1107.60	494.73	1186.41
MEAN	.00	.00	.00	.00	60.3	46.9	166	104	.60	35.7	16.0	39.5
MAX	.00	.00	.00	.00	150	194	197	188	18	77	185	182
MIN	.00	.00	.00	.00	.00	.00	99	44	.00	.00	.75	.00
AC-FT	.00	.00	.00	.00	3470	2880	9890	6390	36	2200	981	2350

CAL YR 1983 TOTAL 11310.39 MEAN 31.0 MAX 316 MIN .00 AC-FT 22430
WTR YR 1984 TOTAL 14214.74 MEAN 38.8 MAX 197 MIN .00 AC-FT 28190

06714000 SOUTH PLATTE RIVER AT DENVER, CO

LOCATION.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank 90 ft upstream from Nineteenth Street Bridge in Denver and 0.4 mi downstream from Cherry Creek.

DRAINAGE AREA.--3,804 mi².

PERIOD OF RECORD.--May to October 1889, June to October 1890, July 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934(M). WSP 1730: 1957(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,157.64 ft, National Geodetic Vertical Datum, adjustment of 1960. Prior to Aug. 12, 1909, nonrecording gages, and Aug. 12, 1909, to Aug. 28, 1931, water-stage recorder, at several sites within 0.5 mi of present site at various datums. Aug. 29, 1931, to June 28, 1965, water-stage recorder at site 70 ft downstream at datum 3.66 ft, higher. June 29, 1965, to Mar. 18, 1966, water-stage recorder at site 70 ft downstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 79,000 acres and municipal use, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--79 years (water years 1896-1974), 344 ft³/s; 249,200 acre-ft/yr, prior to completion of Chatfield Dam: 9 years (water years 1976-84), 438 ft³/s; 317,000 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft³/s, June 17, 1965, gage height, 18.66 ft, from floodmarks, present datum, from rating curve extended above 2,700 ft³/s, on basis of contracted-opening measurement of peak flow; minimum daily, 8.8 ft³/s, Mar. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,840 ft³/s at 2100 Aug. 20, gage height, 7.32 ft; minimum daily, 106 ft³/s, Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	140	180	202	253	206	500	1510	1170	813	387	2350
2	178	138	187	191	272	199	540	3160	1770	869	693	2280
3	176	136	231	202	343	221	520	3060	1920	1150	1290	2070
4	174	129	392	241	304	232	468	2650	1810	1050	1410	1780
5	172	138	328	264	314	215	422	2120	1530	805	1170	1410
6	178	157	292	260	314	270	422	2410	1460	702	1080	1450
7	187	132	337	246	320	267	454	2160	1670	594	1140	1210
8	168	191	396	244	306	195	535	2380	1570	594	1120	984
9	168	235	224	226	300	217	717	2580	1310	618	805	948
10	161	176	197	210	300	210	861	2210	1060	648	695	730
11	159	224	197	210	326	199	300	2190	1570	642	782	594
12	159	224	187	204	300	204	1390	2010	1500	644	709	667
13	149	215	174	178	300	213	1260	2630	1420	1100	630	702
14	170	213	159	180	467	206	1130	3610	994	1210	624	805
15	151	206	159	178	389	226	975	3710	782	1150	682	957
16	144	170	151	170	280	244	869	3840	709	829	660	1230
17	153	170	149	155	246	215	760	3620	853	530	674	1210
18	145	405	145	178	219	284	1140	3330	1210	537	856	1150
19	153	300	140	155	206	267	1630	2780	1190	895	1310	908
20	147	213	157	151	204	400	1900	2620	1140	427	2880	530
21	140	193	311	151	202	403	2110	2520	1070	642	3370	505
22	140	182	353	153	184	559	2250	2590	1000	589	2900	255
23	140	176	326	121	180	716	2490	2560	957	572	2900	217
24	132	166	199	118	180	578	2780	2150	930	562	3320	241
25	130	170	178	106	217	618	2390	1690	894	336	3540	343
26	129	191	172	120	287	578	2660	2190	966	326	3430	334
27	123	180	182	113	233	486	2740	2150	948	422	3480	331
28	121	180	257	230	230	486	2440	1800	877	458	3450	451
29	123	180	164	248	239	530	2440	1270	738	464	3330	362
30	121	170	157	246	---	589	2230	994	1150	386	3060	323
31	129	---	199	244	---	530	---	775	---	582	2630	---
TOTAL	4700	5700	6880	5895	7915	10763	41323	75269	36168	21136	55007	27327
MEAN	152	190	222	190	273	347	1377	2428	1206	682	1774	911
MAX	187	405	396	264	467	716	2780	3840	1920	1210	3540	2350
MIN	121	129	140	106	180	195	300	775	709	326	387	217
AC-FT	9320	11310	13650	11690	15700	21350	81960	149300	71740	41920	109100	54200

CAL YR 1983 TOTAL 349207 MEAN 957 MAX 3940 MIN 77 AC-FT 692700
WTR YR 1984 TOTAL 298083 MEAN 814 MAX 3840 MIN 106 AC-FT 591200

06714215 SOUTH PLATTE RIVER AT 64TH AVENUE AT COMMERCE CITY, CO

LOCATION.--Lat 39°48'44", long 104°57'28", in NW¼NW¼ sec. 12, T.3 S., R.68W., Adams County, Hydrologic Unit 10190003, on right bank 300 ft southeast of intersection of York Street and East 64th Avenue and 1,900 ft upstream from mouth of Sand Creek at Northeast corner of Metro Denver Sewage Disposal plant at Commerce City.

DRAINAGE AREA.--3,829 mi².

PERIOD OF RECORD.--January 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,105 ft, from topographic map.

REMARKS.--Records poor prior to January and good thereafter. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,480 ft³/s, Aug. 20, 1984, gage height, 7.64 ft; minimum daily, 4.0 ft³/s, Mar. 25, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,480 ft³/s at 2230, Aug. 20, gage height 7.64 ft; minimum daily, 11 ft³/s, Dec. 2-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	15	12	265	308	236	86	1440	544	146	105	1800
2	19	15	11	245	332	236	82	2860	952	320	320	1720
3	18	15	11	265	410	250	292	2910	1100	338	1010	1550
4	17	15	11	265	380	275	398	2520	1070	338	1250	1410
5	16	16	11	350	368	231	392	2000	907	222	976	1110
6	16	17	11	338	356	296	417	2350	896	222	841	1150
7	16	17	11	326	392	302	452	1990	1040	146	918	976
8	16	18	11	314	398	204	552	2200	976	54	760	800
9	17	18	20	285	386	204	733	2310	800	58	528	760
10	17	17	115	255	380	218	885	1920	560	73	386	616
11	17	16	115	255	404	208	1270	1930	896	98	438	459
12	16	16	112	245	392	208	1410	1760	896	235	392	528
13	16	16	[illegible]	222	380	226	1330	2200	1020	584	326	552
14	16	16	118	226	544	226	1220	3160	658	703	362	624
15	16	16	180	226	512	240	1090	3200	496	694	410	703
16	16	16	200	218	350	255	863	3290	528	552	392	952
17	17	16	205	184	302	231	640	3150	760	568	404	976
18	16	40	210	165	260	302	940	2880	860	200	520	964
19	16	50	210	180	240	280	1550	2310	920	547	952	874
20	16	25	215	173	245	431	1860	2040	880	88	2770	552
21	16	17	220	191	245	438	2220	1940	800	374	2350	536
22	16	16	225	191	208	576	2250	2080	700	356	2540	285
23	16	15	230	158	195	810	2310	2140	600	374	2550	226
24	15	15	235	151	195	649	2650	1770	520	480	2960	240
25	15	14	240	142	240	667	2280	1310	500	275	3130	374
26	15	13	240	148	296	452	2520	1810	496	108	3030	356
27	15	13	245	142	231	308	2600	1800	480	175	3150	350
28	15	12	250	280	218	195	2380	1480	431	144	2840	496
29	15	12	255	296	255	102	2280	940	338	204	2650	386
30	15	12	260	302	---	105	2110	632	646	98	2410	326
31	15	---	260	290	---	92	---	398	---	349	2050	---
TOTAL	502	529	4559	7293	9422	9453	40062	64740	22270	9123	43720	22651
MEAN	16.2	17.6	147	235	325	305	1335	2088	742	294	1410	755
MAX	20	50	260	350	544	810	2650	3290	1100	703	3150	1800
MIN	15	12	11	142	195	92	82	398	338	54	105	226
AC-FT	996	1050	9040	14470	18690	18750	79460	128400	44170	18100	86720	44930

CAL YR 1983 TOTAL 297350.8 MEAN 815 MAX 3440 MIN 5.9 AC-FT 589800
WTR YR 1984 TOTAL 234324 MEAN 640 MAX 3290 MIN 11 AC-FT 464800

BEST PY AVAILABLE

06716500 CLEAR CREEK NEAR LAWSON, CO

LOCATION.--Lat 39°45'57", long 105°37'32", in NW¼NW¼ sec.25, T.3 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank at east edge of Lawson, 30 ft downstream from private bridge, and 2.0 mi downstream from West Fork Clear Creek.

DRAINAGE AREA.--147 mi^2.

PERIOD OF RECORD.--March 1946 to current year. Records prior to 1959 include inflow from August P. Gumlick Tunnel (formerly Jones Pass tunnel).

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,080 ft, from topographic map. Mar. 29, 1946, to Sept. 30, 1967, at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by minor transmountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report). No diversion above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--38 years, 139 ft^3/s; 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,130 ft^3/s, June 4, 1956, gage height, 7.41 ft, site and datum then in use, from rating curve extended above 1,600 ft^3/s, on basis of computation of peak flow over dam, caused by failure of Georgetown Dam on White Reservoir 5.0 mi upstream; minimum daily, 13 ft^3/s, Feb. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft^3/s at 0100 July 1, gage height, 6.14 ft; only peak above base of 600 ft^3/s; minimum daily, 25 ft^3/s, Mar. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	59	51	34	37	32	36	45	842	1110	485	381
2	109	62	50	34	36	33	35	46	801	1000	519	350
3	104	59	47	34	39	32	34	45	738	968	477	317
4	101	62	50	39	37	32	34	45	711	913	445	283
5	101	75	46	37	36	25	37	46	676	883	431	252
6	101	73	45	36	36	25	38	45	614	853	530	233
7	98	61	48	36	36	28	37	43	580	823	499	250
8	96	63	46	35	36	29	39	44	500	803	448	248
9	95	53	43	34	36	28	41	49	458	810	422	232
10	94	58	42	33	36	28	39	60	426	950	400	211
11	95	67	42	34	36	28	42	82	421	820	371	196
12	91	63	42	33	36	27	38	117	450	743	359	185
13	86	58	39	31	36	26	41	165	522	703	351	178
14	90	54	38	31	36	27	38	235	706	684	337	176
15	85	48	37	31	36	27	40	295	810	637	339	172
16	82	60	42	30	35	27	42	333	875	581	343	182
17	81	63	45	29	36	26	50	345	850	550	359	167
18	84	68	43	28	34	28	56	371	790	513	368	156
19	80	58	41	29	32	26	53	327	825	498	355	148
20	77	54	38	30	34	26	54	357	850	494	346	155
21	79	53	30	33	36	28	48	436	890	497	377	147
22	78	46	32	36	34	30	50	511	930	476	383	146
23	77	43	34	36	34	28	50	573	935	498	356	139
24	77	47	32	36	33	27	52	702	935	531	438	134
25	75	56	35	37	35	29	50	795	930	509	455	133
26	73	53	37	37	34	26	49	712	937	555	434	131
27	74	46	35	36	33	30	45	722	952	526	418	124
28	72	50	33	36	32	35	43	670	952	532	395	126
29	70	48	35	36	33	36	47	671	967	499	375	119
30	68	50	37	34	---	36	45	734	1020	484	356	122
31	64	---	37	37	---	36	---	795	---	509	360	---
TOTAL	2671	1710	1252	1052	1020	901	1303	10416	22893	20952	12531	5793
MEAN	86.2	57.0	40.4	33.9	35.2	29.1	43.4	336	763	676	404	193
MAX	114	75	51	39	39	36	56	795	1020	1110	530	381
MIN	64	43	30	28	32	25	34	43	421	476	337	119
AC-FT	5300	3390	2480	2090	2020	1790	2580	20660	45410	41560	24860	11490

CAL YR 1983 TOTAL 76593 MEAN 210 MAX 1360 MIN 25 AC-FT 151900
WTR YR 1984 TOTAL 82494 MEAN 225 MAX 1110 MIN 25 AC-FT 163600

06719505 CLEAR CREEK AT GOLDEN, CO

LOCATION.--Lat 39°45'11", long 105°14'05", in NE¼NW¼ sec.33, T.3 S., R.70 W., Jefferson County, Hydrologic Unit 10190004, on left bank 100 ft downstream from U.S. Highway 6 bridge at west edge of Golden, 0.7 mi downstream from headgate of Church ditch, and 13.3 mi downstream from North Clear Creek.

DRAINAGE AREA.--400 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year. Records for station at site 0.8 mi upstream (October 1908 to December 1909, June 1911 to September 1974) are not equivalent due to diversions by Church ditch. Sediment data available April to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 5,695 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by minor transmountain diversions from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report) and several small reservoirs above station. Diversion by Welch ditch 1.4 mi upstream and by Church Ditch 0.7 mi upstream for irrigation of about 5,200 acres below station.

AVERAGE DISCHARGE.--10 years, 196 ft³/s; 142,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft³/s, July 10, 1983, gage height, 6.44 ft, minimum daily, 18 ft³/s, Dec. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft³/s at 0700 May 25, gage height, 5.44 ft; minimum daily, 42 ft³/s, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	105	118	80	60	54	72	153	1180	1280	635	456
2	114	98	117	80	60	54	71	155	1120	1170	679	439
3	114	105	119	80	60	57	62	155	1020	1110	586	400
4	113	96	115	80	60	47	60	165	970	1030	542	353
5	113	111	103	80	60	42	69	170	917	981	523	321
6	113	128	100	78	60	62	74	173	801	950	561	297
7	112	111	100	74	60	58	78	170	760	928	583	290
8	112	102	95	70	60	66	78	166	653	904	515	314
9	111	95	95	70	60	52	89	180	606	934	478	294
10	111	93	96	70	60	50	83	221	551	1090	448	277
11	110	118	91	70	60	52	98	273	544	935	409	258
12	110	118	87	70	49	52	80	345	611	840	383	249
13	104	114	80	70	63	51	89	459	701	790	403	224
14	98	108	61	70	69	56	72	580	955	791	376	217
15	98	88	88	70	61	60	80	669	1030	734	363	216
16	87	103	64	70	55	54	89	756	1100	681	363	223
17	94	112	63	70	65	50	102	782	1060	637	399	211
18	95	122	70	70	60	57	130	815	975	590	420	184
19	98	122	72	70	56	53	130	725	1010	564	431	158
20	87	105	74	70	66	54	146	749	1050	561	413	160
21	85	106	76	70	70	60	122	857	1110	572	449	155
22	86	91	80	70	68	68	132	981	1130	547	478	147
23	83	73	80	70	56	63	148	1070	1130	573	433	140
24	81	77	80	70	49	62	174	1260	1110	587	480	133
25	84	104	80	70	58	70	187	1430	1070	600	541	127
26	81	105	80	68	55	60	190	1250	1050	631	538	129
27	82	112	80	64	49	69	168	1220	1070	591	498	121
28	102	110	80	62	56	67	157	1100	1070	638	482	136
29	112	118	80	60	63	75	166	1050	1080	614	461	142
30	113	109	80	60	---	79	153	1090	1140	583	433	146
31	110	---	80	60	---	73	---	1140	---	614	429	---
TOTAL	3127	3159	2684	2186	1728	1827	3349	20309	28574	24050	14737	6917
MEAN	101	105	86.6	70.5	59.6	58.9	112	655	952	776	475	231
MAX	114	128	119	80	70	79	190	1430	1180	1280	679	456
MIN	81	73	61	60	49	42	60	153	544	547	363	121
AC-FT	6200	6270	5320	4340	3430	3620	6640	40280	56680	47700	29230	13720

CAL YR 1983 TOTAL 118393 MEAN 324 MAX 1920 MIN 32 AC-FT 234800
WTR YR 1984 TOTAL 112647 MEAN 308 MAX 1430 MIN 42 AC-FT 223400

BEST C AVAILABLE

06719505 CLEAR CREEK AT GOLDEN, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1981 to current year.
pH: March to September 1981.
WATER TEMPERATURE: March 1981 to current year.
DISSOLVED OXYGEN: March to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: March to September 1981.

INSTRUMENTATION.--Water-quality monitor since March 1981.

REMARKS.--Records rated good. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 597 micromhos Jan. 9, 1983; minimum, 38 micromhos July 1, 1983.
pH: Maximum, 8.7 units Mar. 27, April 10, 1981; minimum, 6.6 units July 16, 1981.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 4, 1981; minimum, freezing point on many days during winter months most years.
DISSOLVED OXYGEN: Maximum 14.2 mg/L May 7, 1981; minimum, 5.2 mg/L July 16, 1981.
SEDIMENT CONCENTRATIONS: Maximum daily, 282 mg/L May 29, 1981; minimum daily, 3 mg/L Sept. 21-24, 1981.
SEDIMENT LOADS: Maximum daily, 230 tons June 3, 1981; minimum daily, 0.62 ton Sept. 23-24, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 326 micromhos Mar. 12; minimum, 82 micromhos June 30 and July 1.
WATER TEMPERATURES: Maximum, 17.0°C July 21, 22; minimum, 0.5°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
DEC										
08...	1100	94	220	7.6	.5	9.6	.82	84	23	6.5
FEB										
22...	1500	56	290	7.9	3.0	11.1	.76	100	28	7.7
JUN										
11...	1300	541	120	7.9	13.0	10.0	--	39	11	2.9
SEP										
27...	1100	125	150	7.7	8.5	10.0	--	57	16	4.1

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
DEC										
08...	11	.5	2.3	45	59	6.3	.70	10	150	.20
FEB										
22...	15	.7	3.0	58	78	8.2	.80	11	190	.25
JUN										
11...	4.0	.3	1.1	22	23	2.5	.60	9.2	69	.09
SEP										
27...	6.2	.4	1.5	32	33	3.6	.60	8.6	94	.13

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
DEC									
08...	37	.30	.32	.70	.20	.50	1.0	.050	<.010
FEB									
22...	29	.40	.36	.50	.10	.40	.90	.060	<.010
JUN									
11...	100	.10	.10	.60	--	.30	.70	.040	.040
SEP									
27...	32	.10	.12	<.20	--	<.20	--	.020	.010

06719505 CLEAR CREEK AT GOLDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 08...	--	--	--	--	--	--	--	--	68
FEB 22...	1	<1	3	3	6	<1	68	7	9
JUN 11...	<1	<1	<1	<1	5	<1	36	20	240
SEP 27...	--	--	--	--	--	--	--	--	140

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 08...	--	--	1500	--	--	--	--	--	--
FEB 22...	14	<1	1800	<.1	<.1	<1	<1	840	440
JUN 11...	2	<1	590	.2	.3	<1	<1	340	230
SEP 27...	--	--	880	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	210	210	201	200	---	284	253	105	82	111	119
2	218	212	209	200	200	---	281	248	105	83	108	121
3	202	208	209	200	199	---	284	246	107	84	108	121
4	205	204	210	199	200	---	284	242	108	85	112	124
5	221	207	210	198	200	---	280	237	109	85	112	127
6	228	207	210	199	200	---	279	235	111	87	109	130
7	235	204	210	199	201	---	277	246	113	86	110	129
8	243	198	210	199	202	---	275	275	117	90	112	131
9	238	186	210	200	201	300	267	277	120	85	115	131
10	227	189	210	200	201	322	263	264	122	87	117	133
11	---	196	210	202	200	324	266	238	124	88	119	135
12	197	197	209	204	200	326	268	206	122	90	121	137
13	233	196	209	203	201	316	263	187	119	91	122	139
14	227	191	210	203	201	307	264	167	107	94	123	140
15	196	224	210	203	201	298	266	150	102	95	124	142
16	187	229	210	203	200	300	263	151	97	97	123	143
17	204	230	211	203	199	314	259	145	95	99	125	144
18	212	223	211	202	199	307	242	144	98	101	123	146
19	204	211	211	202	200	308	235	146	96	101	125	150
20	199	211	211	204	200	298	228	144	95	100	127	152
21	197	211	211	203	202	286	228	144	92	102	124	155
22	195	210	210	203	210	280	244	136	91	104	123	156
23	196	211	210	203	---	279	246	125	90	103	124	156
24	192	213	209	202	---	290	248	118	88	103	120	158
25	184	213	208	202	---	289	249	110	88	101	118	160
26	186	212	207	200	---	292	249	112	88	103	118	160
27	188	213	205	199	---	298	254	113	86	106	118	161
28	188	210	204	199	---	296	257	113	87	107	118	163
29	184	210	204	199	---	281	251	113	84	106	118	---
30	189	209	203	200	---	278	252	110	82	106	119	---
31	199	---	202	200	---	284	---	108	---	106	119	---
MEAN	207	208	209	201	201	299	260	178	102	95	118	142

WTR YR 1984 MEAN 182 MAX 326 MIN 82

06719505 CLEAR CREEK AT GOLDEN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	10.0	7.0	5.5	.5	.5	.5	.5	.5	.5	3.0	.5
2	11.5	8.5	7.5	5.5	.5	.5	.5	.5	.5	.5	3.5	.5
3	10.0	7.5	7.0	5.0	.5	.5	.5	.5	.5	.5	2.0	.5
4	10.0	7.0	6.5	4.5	.5	.5	.5	.5	.5	.5	1.0	.5
5	11.0	8.0	7.5	5.0	.5	.5	.5	.5	.5	.5	1.0	.5
6	11.5	8.5	7.0	5.5	.5	.5	.5	.5	.5	.5	1.0	.5
7	11.5	9.0	7.0	5.0	.5	.5	.5	.5	.5	.5	1.5	.5
8	11.0	10.0	6.0	1.5	.5	.5	.5	.5	1.0	.5	2.5	.5
9	11.5	9.0	1.5	.5	.5	.5	.5	.5	1.0	.5	2.5	.5
10	10.0	8.5	2.5	1.0	.5	.5	.5	.5	1.5	.5	3.0	.5
11	---	---	4.5	2.5	.5	.5	.5	.5	1.5	.5	3.5	1.0
12	9.0	7.5	5.5	3.5	.5	.5	.5	.5	1.0	.5	4.0	1.0
13	8.5	5.5	4.5	3.5	.5	.5	.5	.5	2.0	.5	5.0	1.5
14	9.0	6.5	3.5	2.5	.5	.5	.5	.5	1.5	.5	5.5	2.0
15	7.5	5.5	2.0	.5	.5	.5	.5	.5	2.0	.5	6.5	2.5
16	6.5	4.0	3.0	1.5	.5	.5	.5	.5	1.5	.5	4.5	2.0
17	7.0	4.5	4.0	2.0	.5	.5	.5	.5	.5	.5	5.5	1.0
18	8.0	6.5	3.0	1.0	.5	.5	.5	.5	.5	.5	3.5	2.5
19	7.5	6.0	1.0	.5	.5	.5	.5	.5	.5	.5	6.5	1.5
20	6.5	4.5	1.5	.5	.5	.5	.5	.5	.5	.5	7.0	2.0
21	7.5	5.0	1.5	.5	.5	.5	.5	.5	1.0	.5	7.0	3.0
22	7.5	5.0	.5	.5	.5	.0	.5	.5	2.0	.5	4.0	.5
23	8.0	5.5	.5	.5	.5	.5	.5	.5	2.0	.5	4.0	.5
24	7.0	4.5	.5	.5	.5	.5	.5	.5	2.0	.5	7.5	1.0
25	6.0	3.0	.5	.5	.5	.5	.5	.5	1.5	.5	4.0	1.5
26	6.5	4.0	.5	.5	.5	.5	.5	.5	1.5	.5	6.5	.5
27	7.0	5.0	.5	.5	.5	.5	.5	.5	1.0	.5	3.5	1.0
28	7.0	5.5	.5	.5	.5	.5	.5	.5	.5	.5	5.0	.5
29	6.5	4.5	.5	.5	.5	.5	.5	.5	1.5	.5	5.5	.5
30	8.0	5.5	.5	.5	.5	.5	.5	.5	---	---	3.0	2.0
31	7.5	5.5	---	---	.5	.5	.5	.5	---	---	3.5	1.5
MONTH	12.0	3.0	7.5	.5	.5	.0	.5	.5	2.0	.5	7.5	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.5	1.5	10.0	5.5	10.0	8.0	13.5	10.0	15.0	12.0	15.0	10.5
2	2.0	.5	9.0	6.5	11.5	7.0	13.5	10.5	16.5	11.5	14.0	10.0
3	4.0	.5	11.0	4.5	10.0	7.0	14.5	10.0	15.0	12.0	14.0	10.0
4	7.5	.5	10.5	5.5	11.0	7.0	14.5	10.5	15.5	12.0	15.0	10.0
5	7.0	2.5	8.5	6.0	9.5	7.5	14.5	11.0	15.0	13.0	15.0	10.5
6	7.0	3.0	11.0	6.0	9.0	6.0	13.5	11.0	15.0	11.5	15.5	11.0
7	8.5	3.5	8.5	4.0	10.5	7.0	13.5	11.0	16.0	11.5	12.5	8.5
8	10.0	4.0	11.5	3.5	10.5	6.0	13.0	10.5	15.0	12.0	13.5	8.5
9	7.5	5.0	13.0	6.5	10.5	6.0	14.5	10.5	16.0	11.0	14.5	10.0
10	9.5	3.5	13.5	7.5	10.5	5.5	15.0	10.5	16.5	11.5	15.0	10.5
11	8.5	4.0	12.5	8.0	12.5	8.0	15.0	10.5	16.0	12.0	12.0	11.0
12	8.0	1.0	13.0	8.0	13.5	9.0	13.5	11.5	16.0	11.5	15.0	11.5
13	8.5	3.0	13.5	8.0	13.0	10.0	14.5	11.5	15.5	12.0	14.0	12.0
14	9.0	2.5	11.5	8.0	12.5	9.0	13.5	11.5	16.0	12.5	12.0	10.0
15	10.0	3.0	11.5	8.0	12.0	8.5	16.0	11.0	16.0	12.5	11.5	10.0
16	11.0	3.5	11.0	7.5	12.0	8.5	14.5	11.5	16.0	13.0	12.0	10.5
17	11.5	5.0	12.0	6.0	11.5	7.5	15.5	11.0	16.0	13.0	13.5	9.5
18	9.0	7.0	10.0	6.5	12.0	8.5	15.0	11.5	15.0	12.5	14.0	10.5
19	8.0	6.0	11.5	6.0	12.0	8.5	15.0	12.0	15.0	13.0	13.5	11.0
20	6.5	.5	12.5	6.5	12.0	8.5	16.0	12.0	15.0	12.5	12.5	10.5
21	3.5	.5	12.0	7.0	10.0	8.0	17.0	12.5	14.0	12.0	13.0	11.0
22	8.5	1.5	11.5	7.5	12.0	8.5	17.0	13.0	15.0	12.0	13.0	10.5
23	10.0	3.5	13.0	7.0	11.5	8.5	15.5	13.0	14.5	12.5	12.0	9.0
24	7.5	5.0	12.5	7.0	12.5	9.0	15.5	12.5	13.5	11.5	11.5	8.0
25	9.0	4.5	10.5	7.5	11.5	9.0	13.5	12.0	14.0	11.0	8.0	7.0
26	6.5	3.0	11.5	7.0	12.5	8.5	16.0	11.5	15.0	11.5	9.0	7.0
27	5.5	1.5	11.5	7.0	13.5	9.0	16.0	11.5	15.5	11.5	10.0	7.5
28	4.0	1.0	11.0	6.5	13.5	9.0	14.5	11.5	14.5	11.5	8.5	3.5
29	7.5	1.5	12.0	6.5	12.5	9.5	15.0	12.0	16.0	11.5	6.0	---
30	8.0	3.0	12.0	7.0	13.5	10.0	14.0	12.0	15.5	12.0	7.5	4.0
31	---	---	11.0	7.5	---	---	16.0	12.0	15.0	12.0	---	---
MONTH	11.5	.5	13.5	3.5	13.5	5.5	17.0	10.0	16.5	11.0	15.5	3.5
YEAR	17.0	.0										

06719725 RALSTON CREEK NEAR PLAINVIEW, CO

LOCATION.--Lat 39°51'04", long 105°17'52", SE¼NE¼ sec.26, T.2 S., R.71 W., Jefferson County, Hydrologic Unit 101900041, on left bank, 20 ft downstream of Cotter Corporation property line, 3.2 mi south west of Plainview.

DRAINAGE AREA.--36.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to September 1984 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 6,760 ft, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded discharge, 334 ft³/s, May 26, 1983, gage height, 3.16 ft; minimum daily, 1.2 ft³/s, Sept. 18, 19, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 147 ft³/s at 2300 May 15, gage height, 2.49 ft; minimum daily, 1.3 ft³/s, Sept. 22-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.9	3.3	2.3	2.1	2.2	5.4	38	24	5.4	13	2.3
2	1.5	1.9	3.4	2.3	2.1	2.2	5.7	48	24	4.9	19	2.4
3	1.5	2.0	3.3	2.2	2.1	2.2	5.9	58	21	4.2	13	2.4
4	1.8	2.0	3.3	2.2	2.1	2.2	5.4	65	20	3.7	10	2.2
5	2.0	2.1	3.0	2.1	2.1	2.2	5.7	68	18	3.3	9.2	2.0
6	1.9	2.2	2.8	2.1	2.1	2.2	7.6	66	18	3.0	8.1	1.7
7	1.9	2.3	2.8	2.1	2.1	2.2	9.5	64	17	3.0	8.4	1.5
8	2.0	2.3	2.8	2.1	2.1	2.3	13	59	16	2.9	7.3	1.5
9	2.0	2.3	2.9	2.1	2.1	2.3	17	62	14	2.9	6.2	1.6
10	2.1	2.8	2.8	2.1	2.1	2.6	18	76	13	4.9	5.9	1.5
11	2.1	2.9	2.8	2.1	2.1	2.7	21	92	13	4.6	4.9	1.5
12	2.2	3.1	2.7	2.1	2.1	2.8	19	116	12	3.0	4.2	1.4
13	2.2	3.0	2.7	2.1	2.1	3.1	18	132	12	2.8	4.0	1.4
14	2.0	2.8	2.7	2.1	2.1	4.2	17	143	13	2.6	4.0	1.4
15	1.8	2.3	2.7	2.1	2.1	5.1	17	143	12	2.6	3.9	1.6
16	1.9	2.9	2.7	2.1	2.1	5.3	18	137	12	3.4	3.6	1.8
17	1.8	2.7	2.7	2.1	2.1	4.4	22	119	12	2.7	3.7	1.8
18	1.8	2.7	2.6	2.1	2.1	4.4	26	101	11	2.3	4.4	1.7
19	1.7	2.3	2.6	2.1	2.1	3.7	26	89	10	2.1	4.2	1.5
20	1.7	2.6	2.6	2.1	2.1	3.9	25	81	11	2.0	5.3	1.4
21	1.6	2.6	2.5	2.1	2.1	4.6	19	73	13	1.8	6.9	1.4
22	1.8	2.6	2.4	2.1	2.1	4.9	26	66	9.5	1.7	6.6	1.3
23	1.8	2.6	2.4	2.1	2.1	4.9	28	60	9.0	2.1	5.7	1.3
24	1.7	2.6	2.4	2.1	2.1	4.9	34	54	8.4	3.3	5.1	1.3
25	1.7	2.9	2.4	2.1	2.1	5.4	40	50	7.3	5.4	4.9	1.3
26	1.7	2.7	2.4	2.1	2.1	5.9	50	43	7.1	7.1	4.6	1.4
27	1.7	2.6	2.5	2.1	2.1	5.4	46	36	6.6	9.8	3.7	1.4
28	1.6	2.6	2.5	2.1	2.1	5.4	38	31	5.4	6.2	3.3	1.6
29	1.7	2.6	2.5	2.1	2.1	5.7	36	29	4.8	7.8	2.8	1.8
30	2.0	2.6	2.5	2.1	---	5.7	34	27	4.6	5.9	2.6	2.8
31	2.1	---	2.4	2.1	---	5.7	---	24	---	6.4	2.3	---
TOTAL	56.8	75.5	84.1	65.7	60.9	120.7	653.2	2250	378.7	123.8	190.8	50.2
MEAN	1.83	2.52	2.71	2.12	2.10	3.89	21.8	72.6	12.6	3.99	6.15	1.67
MAX	2.2	3.1	3.4	2.3	2.1	5.9	50	143	24	9.8	19	2.8
MIN	1.5	1.9	2.4	2.1	2.1	2.2	5.4	24	4.6	1.7	2.3	1.3
AC-FT	113	150	167	130	121	239	1300	4460	751	246	378	100

WTR YR 1984 TOTAL 4110.4 MEAN 11.2 MAX 143 MIN 1.3 AC-FT 8150

NOTE.--NO GAGE-HEIGHT RECORD DEC. 20 TO MAR. 8.

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1983 to September 1984.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1983 to September 1984.
pH: March 1983 to September 1984.
WATER TEMPERATURES: March 1983 to September 1984.
DISSOLVED OXYGEN: March 1983 to September 1984.

INSTRUMENTATION.--Water quality monitor since March 1983. (Discontinued Sept. 30, 1984).

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 209 micromhos Oct. 2, 1983; minimum, 64 micromhos May 15, 18, 1984.
pH: Maximum, 9.4 units Aug. 25, 1984; minimum, 7.2 units July 2, 3, 1984.
WATER TEMPERATURES: Maximum, 23.5°C, July 23, 1984; minimum 0.0°C, several days in Nov., Dec., Jan., and Apr.
DISSOLVED OXYGEN: Maximum, 11.9 mg/L Mar. 31, 1984; minimum, 7.3 mg/L Oct. 1, 2, 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC												
05...	1045	3.1	178	8.1	.5	10.6	19	5.1	--	--	69	--
05...	1400	3.1	178	8.1	1.0	10.5	19	5.1	8.3	1.4	71	16
05...	1930	3.0	186	7.8	.0	10.6	19	5.1	--	--	70	--
06...	2320	3.1	188	7.9	.5	11.2	19	5.7	7.5	1.3	70	17
08...	0800	2.8	175	8.3	1.0	10.8	19	5.6	7.6	1.3	69	17
08...	2015	2.9	158	8.0	.5	11.3	17	5.5	--	--	67	--
09...	0030	2.9	182	7.9	.5	11.1	18	5.6	--	--	68	--
09...	1100	2.8	175	8.3	1.5	10.3	19	5.4	--	--	68	--
09...	1230	2.9	170	8.1	2.0	10.7	19	5.4	--	--	68	--
MAY												
14...	2115	157	80	7.9	8.0	9.0	--	--	--	--	23	--
15...	2315	155	80	7.9	7.5	9.1	7.9	2.8	4.1	1.7	24	12
16...	0930	135	79	7.5	7.5	9.3	7.7	2.6	--	--	23	--
16...	1930	145	80	8.0	9.0	8.6	7.9	2.6	--	--	25	--
17...	0540	135	75	7.5	5.5	9.8	7.8	2.6	--	--	24	--
17...	1515	116	78	7.5	10.5	8.6	8.0	2.7	4.2	1.7	24	16
18...	0100	106	80	7.6	7.5	9.0	8.2	2.5	--	--	26	--
18...	0745	106	78	7.5	6.0	9.9	7.9	2.4	4.1	1.4	26	16
18...	1230	102	80	7.5	9.0	9.0	8.0	2.6	--	--	25	--
AUG												
27...	1315	3.7	168	8.1	17.5	7.9	18	5.0	--	--	69	--
28...	0100	3.1	175	8.3	15.5	7.2	19	5.0	6.9	2.3	72	13
28...	0900	3.2	172	8.1	13.5	8.2	18	5.1	--	--	73	--
28...	2100	3.0	170	8.3	16.5	6.7	18	5.2	--	--	71	--
29...	1710	2.6	171	8.0	18.0	7.4	19	5.2	7.3	1.5	72	14
29...	2300	2.6	180	8.3	15.5	7.0	18	5.1	--	--	73	--
30...	0740	2.7	173	8.0	12.5	8.2	20	5.3	7.6	1.5	74	13
30...	1930	2.4	180	8.1	17.0	6.6	20	5.2	--	--	73	--
31...	1115	2.5	175	8.1	15.5	7.9	20	5.4	--	--	75	--

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
DEC											
05...	--	111	--	--	--	--	--	--	--	--	--
05...	4.8	119	--	<.010	<.10	.050	.75	.80	--	<.010	.010
05...	--	117	--	--	--	--	--	--	--	--	--
06...	4.8	119	--	<.010	<.10	.050	.75	.80	--	<.010	<.010
08...	4.7	117	--	<.010	<.10	.040	.46	.50	--	.010	.020
08...	--	115	--	--	--	--	--	--	--	--	--
09...	--	115	--	--	--	--	--	--	--	--	--
09...	--	117	--	--	--	--	--	--	--	--	--
09...	--	117	--	--	--	--	--	--	--	--	--
MAY											
14...	--	82	--	--	--	--	--	--	--	--	--
15...	2.5	75	.09	.010	.10	.050	.65	.70	.80	.080	.050
16...	--	74	--	--	--	--	--	--	--	--	--
16...	--	76	--	--	--	--	--	--	--	--	--
17...	--	78	--	--	--	--	--	--	--	--	--
17...	2.4	76	--	.010	<.10	.030	.67	.70	--	.080	.050
18...	--	89	--	--	--	--	--	--	--	--	--
18...	2.4	80	--	<.010	<.10	<.010	--	.50	--	.060	.070
18...	--	79	--	--	--	--	--	--	--	--	--
AUG											
27...	--	113	--	--	--	--	--	--	--	--	--
28...	4.1	119	--	<.010	<.10	.020	[illegible]	.50	--	.010	.020
28...	--	114	--	--	--	--	--	--	--	--	--
28...	--	115	--	--	--	--	--	--	--	--	--
29...	4.1	99	--	<.010	<.10	.010	--	<.20	--	.010	.010
29...	--	114	--	--	--	--	--	--	--	--	--
30...	4.1	104	--	<.010	<.10	<.010	--	<.20	--	.010	<.010
30...	--	99	--	--	--	--	--	--	--	--	--
31...	--	117	--	--	--	--	--	--	--	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
DEC										
05...	--	--	--	--	<1	--	3	4	340	57
05...	<1	<100	40	--	<1	<10	3	3	190	41
05...	--	--	--	--	--	--	3	4	140	51
06...	<1	100	30	--	--	<10	16	1	160	24
08...	<1	100	40	--	--	--	4	1	240	36
08...	--	--	--	--	--	--	51	1	170	61
09...	--	--	--	--	--	--	14	1	160	46
09...	--	--	--	--	--	--	4	1	220	41
09...	--	--	--	--	--	--	5	1	150	49
MAY										
14...	--	--	--	<1	--	--	9	4	--	470
15...	<1	200	<10	<1	--	--	8	2	3500	440
16...	--	--	--	<1	--	--	7	2	2900	380
16...	--	--	--	--	--	--	12	4	2600	180
17...	--	--	--	<1	--	--	5	2	2700	320
17...	<1	<100	10	<1	--	--	9	3	3800	310
18...	--	--	--	<1	--	--	7	2	2500	380
18...	<1	<100	<10	<1	--	--	7	4	2400	320
18...	--	--	--	<1	--	--	7	3	2400	320
AUG										
27...	--	--	--	<1	--	--	4	2	400	120
28...	<1	<100	40	<1	--	--	5	1	550	130
28...	--	--	--	--	--	--	2	3	500	120
28...	--	--	--	<1	--	--	4	2	410	110
29...	<1	300	30	<1	--	--	4	3	230	110
29...	--	--	--	<1	--	--	3	2	430	110
30...	<1	<100	40	1	--	--	4	2	350	90
30...	--	--	--	<1	--	--	10	2	330	120
31...	--	--	--	<1	--	--	6	6	390	80

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06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
DEC										
05...	3	3	20	3	--	--	--	--	--	--
05...	2	<1	10	3	.2	2	5	--	--	40
05...	1	1	10	2	--	--	--	--	--	--
06...	1	2	10	4	<.1	1	3	--	--	20
08...	2	1	10	3	<.1	2	3	--	--	10
08...	8	2	10	3	--	--	--	--	--	--
09...	10	3	10	3	--	--	--	--	--	--
09...	1	<1	20	3	--	--	--	4	<1	--
09...	1	<1	10	4	--	--	--	3	<1	--
MAY										
14...	9	<1	240	<10	--	--	8	<1	--	--
15...	11	4	140	10	<.1	1	3	<1	--	30
16...	3	<1	110	<10	--	--	--	<1	--	--
16...	<10	1	100	10	--	--	--	<1	--	--
17...	6	<1	90	20	--	--	--	<1	--	--
17...	2	1	120	10	<.1	1	13	<1	--	30
18...	2	<1	80	<10	--	--	--	<1	--	--
18...	<1	<1	90	<10	<.1	<1	<1	1	--	40
18...	<1	6	90	<10	--	--	--	<1	--	--
AUG										
27...	1	3	30	<10	--	--	--	<1	--	--
28...	9	4	30	<10	<.1	1	4	<1	--	10
28...	<1	<1	30	10	--	--	--	--	--	--
28. .	2	<1	30	<10	--	--	--	<1	--	--
29...	8	8	20	<10	<.1	<1	18	<1	--	20
29...	<1	<1	30	10	--	--	--	<1	--	--
30...	3	2	20	<10	<.1	<1	18	<1	--	20
30...	3	6	20	10	--	--	--	<1	--	--
31...	4	6	20	<10	--	--	--	<1	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	URANIUM NATURAL TOTAL (UG/L AS U)
DEC					
05...	<.4	<.4	<.4	2.5	2.5
05...	<.4	<.4	<.4	2.8	2.8
05...	--	--	--	2.6	2.4
06...	--	--	--	2.4	2.3
08...	<.4	.4	.4	2.3	2.3
08...	--	--	--	2.6	2.1
09...	--	--	--	2.5	2.1
09...	--	--	--	2.6	2.5
09...	--	--	--	2.5	2.4
MAY					
14...	--	--	--	1.4	3.8
15...	--	--	--	1.3	3.4
16...	--	--	--	1.1	3.2
16...	--	--	--	1.2	2.9
17...	--	--	--	1.1	2.7
17...	--	--	--	1.4	3.0
18...	--	--	--	1.0	4.7
18...	--	--	--	1.1	2.3
18...	--	--	--	1.4	2.1
AUG					
27...	--	--	--	2.0	2.5
28...	--	--	--	2.2	1.4
28...	--	--	--	1.9	1.7
28...	--	--	--	1.9	1.7
29...	--	--	--	1.9	1.7
29...	--	--	--	2.0	1.6
30...	--	--	--	1.9	1.5
30...	--	--	--	1.9	1.7
31...	--	--	--	1.6	1.7

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
DEC				
05...	1045	3.1	2	.02
05...	1400	3.1	1	.00
05...	1930	3.0	2	.02
06...	2320	3.1	0	.00
08...	0800	2.8	1	.00
08...	2015	2.9	0	.00
09...	0030	2.9	0	.00
09...	1100	2.8	1	.00
09...	1230	2.9	0	.00
MAY				
14...	2115	157	144	61
15...	2315	155	97	41
16...	0930	135	70	26
16...	1930	145	51	20
17...	0540	135	64	23
MAY				
17...	1515	116	101	32
18...	0100	106	42	12
18...	0745	106	71	20
18...	1230	102	50	14
AUG				
27...	1315	3.7	3	.03
28...	0100	3.1	6	.05
28...	0900	3.2	2	.02
28...	2100	3.0	16	.13
29...	1710	2.6	2	.01
29...	2300	2.6	30	.21
30...	0740	2.7	4	.03
30...	1930	2.4	10	.07
31...	1115	2.5	4	03

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	196	179	---	174	168	138	107	103	162	154	175
2	206	194	178	---	174	167	138	103	105	153	140	176
3	205	194	178	---	176	166	139	99	107	153	143	176
4	199	195	178	---	175	168	140	97	108	146	144	179
5	198	194	179	---	175	168	137	96	111	138	145	181
6	201	191	181	174	175	166	132	97	111	137	147	183
7	201	193	177	175	173	166	128	98	113	138	148	186
8	202	189	174	174	171	164	123	99	115	138	151	183
9	201	190	170	172	173	164	119	98	116	139	151	185
10	201	188	171	175	172	163	115	94	117	174	152	189
11	203	185	173	173	170	162	114	89	119	175	155	190
12	200	187	173	174	173	161	110	88	120	173	157	190
13	200	189	176	175	171	158	109	86	122	173	157	192
14	200	190	179	174	169	152	109	83	124	174	157	191
15	201	198	180	177	169	146	109	70	126	174	160	187
16	201	187	179	177	172	149	110	67	126	172	161	187
17	201	189	180	175	172	158	109	70	125	172	162	189
18	202	183	182	177	171	---	105	70	127	175	162	191
19	205	188	181	179	172	---	103	70	129	176	165	194
20	204	188	181	180	172	---	99	71	129	177	162	196
21	203	182	---	176	170	---	100	79	128	178	156	196
22	202	187	---	174	168	---	104	85	135	178	160	198
23	202	189	---	174	171	---	110	89	140	179	163	198
24	200	187	---	174	172	---	111	91	142	177	165	198
25	198	180	---	172	171	---	108	95	143	164	166	194
26	198	180	---	172	170	---	104	93	146	158	166	193
27	198	181	---	173	170	---	104	92	148	153	169	194
28	198	179	---	172	169	---	105	94	152	158	172	188
29	196	179	---	172	168	---	108	97	153	155	173	187
30	195	180	---	174	---	139	109	101	158	159	175	187
31	195	---	---	175	---	139	---	103	---	160	176	---
TOTAL	6221	5632	3549	4539	4978	3024	3449	2771	3798	5038	4914	5653
MEAN	201	188	177	175	172	159	115	89	127	163	159	188
MAX	206	198	182	180	176	168	140	107	158	179	176	198
MIN	195	179	170	172	168	139	99	67	103	137	140	175

WTR YR 1984 TOTAL 53566 MEAN 158 MAX 206 MIN 67

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	208	202	197	195	180	177	---	---	177	172	170	166
2	209	205	195	193	179	177	---	---	176	172	168	165
3	208	203	195	192	179	177	---	---	177	175	167	164
4	208	194	196	194	179	177	---	---	177	174	170	166
5	203	192	195	191	184	177	---	---	177	173	171	164
6	204	194	194	187	183	179	175	173	177	172	173	164
7	205	198	195	191	179	176	176	173	176	171	170	164
8	204	198	195	182	176	172	176	172	173	170	167	162
9	202	199	195	182	171	167	174	171	175	171	166	162
10	204	198	193	184	171	169	180	170	175	170	167	159
11	205	194	187	184	174	171	175	171	173	169	164	160
12	205	194	189	185	174	172	176	173	176	170	164	157
13	202	194	190	188	178	174	177	173	175	168	162	153
14	203	192	199	188	181	177	176	172	170	167	161	144
15	202	201	206	187	182	178	178	175	171	168	150	141
16	203	199	191	183	180	177	178	175	175	169	153	146
17	203	200	190	188	181	178	176	173	175	169	160	154
18	206	199	190	176	190	180	179	176	173	168	---	---
19	205	204	197	179	183	179	179	177	175	168	---	---
20	205	203	197	178	182	180	180	179	175	169	---	---
21	204	202	187	178	---	---	179	175	172	167	---	---
22	203	201	191	183	---	---	176	173	170	166	---	---
23	204	201	191	186	---	---	175	173	174	168	---	---
24	202	199	193	183	---	---	175	172	175	169	---	---
25	199	197	183	179	---	---	174	171	174	169	---	---
26	200	197	181	178	---	---	173	170	173	166	---	---
27	198	197	182	179	---	---	175	172	172	168	---	---
28	200	195	182	176	---	---	174	170	172	167	---	---
29	197	195	180	177	---	---	173	170	169	167	---	---
30	197	193	181	179	---	---	183	172	---	---	140	138
31	197	193	---	---	---	---	177	173	---	---	144	132
MONTH	209	192	206	175	190	167	183	170	177	166	173	13

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	141	134	109	104	104	103	165	159	163	109	177	173
2	141	131	105	101	106	103	166	118	145	125	177	174
3	144	131	101	97	108	107	190	132	144	142	177	175
4	151	128	98	95	110	107	171	136	145	143	180	177
5	142	131	97	95	111	110	141	136	148	144	182	179
6	135	129	98	96	112	111	139	136	148	145	185	181
7	130	125	99	97	115	112	140	137	150	146	187	184
8	125	118	99	97	116	114	139	137	153	149	186	182
9	121	117	100	94	117	115	140	138	153	149	188	183
10	118	111	96	91	118	116	185	116	155	151	190	187
11	115	112	91	86	120	118	179	162	157	154	191	189
12	114	101	90	86	121	119	174	171	159	155	191	188
13	110	108	90	81	124	119	175	172	158	155	193	191
14	112	106	86	74	126	123	175	173	159	156	193	190
15	113	106	84	64	126	125	175	173	161	158	190	186
16	120	100	70	65	127	124	174	171	163	160	189	186
17	111	101	74	65	128	124	174	170	165	160	191	188
18	112	102	79	64	128	126	177	173	164	159	193	189
19	103	93	79	67	131	127	178	174	167	163	196	193
20	104	93	78	69	130	127	179	175	167	148	198	195
21	104	94	83	76	132	126	180	176	158	152	198	195
22	115	95	89	83	138	133	180	177	163	157	199	196
23	116	106	93	88	141	138	180	178	166	162	200	197
24	117	107	98	90	144	141	180	175	166	163	199	196
25	118	104	98	93	144	142	173	160	167	164	197	192
26	105	103	97	90	148	144	166	135	168	164	194	192
27	105	103	94	91	150	146	159	147	171	168	194	193
28	106	104	96	94	155	149	159	157	173	170	193	185
29	109	106	99	96	157	137	159	150	175	172	188	185
30	110	107	102	100	163	135	161	154	177	174	190	181
31	---	---	105	102	---	---	163	156	178	174	---	---
MONTH	151	93	109	64	163	103	190	116	178	109		173
YEAR	209	64										

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06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	8.2	8.4	8.2	8.1	8.1	---	---	8.5	8.3	8.5	8.2
2	8.4	8.1	8.4	8.3	8.1	8.1	---	---	8.4	8.3	8.4	8.2
3	8.4	8.1	8.4	8.3	8.1	8.1	---	---	8.5	8.3	8.5	8.2
4	8.2	8.1	8.4	8.3	8.1	8.1	---	---	8.4	8.3	8.3	8.2
5	8.2	8.1	8.4	8.3	8.1	8.0	---	---	8.4	8.2	8.4	8.1
6	8.2	8.1	8.4	8.3	8.2	8.1	8.3	8.2	8.4	8.2	8.4	8.2
7	8.2	8.1	8.4	8.3	8.3	8.2	8.3	8.2	8.5	8.2	8.4	8.2
8	8.2	8.1	8.3	8.3	8.8	8.3	8.4	8.2	8.5	8.3	8.4	8.3
9	8.2	8.1	8.3	8.2	8.1	8.0	8.4	8.2	8.5	8.3	8.5	8.3
10	8.3	8.2	8.3	8.3	8.1	8.0	8.5	8.2	8.5	8.3	8.5	8.3
11	8.1	8.0	8.4	8.3	8.1	8.0	8.5	8.3	8.5	8.3	8.6	8.3
12	8.1	8.0	8.4	8.3	8.1	8.0	8.5	8.2	8.4	8.2	8.6	8.3
13	8.1	8.0	8.4	8.3	8.1	8.0	8.4	8.2	8.5	8.3	8.6	8.3
14	8.1	8.0	8.4	8.3	8.1	8.0	8.4	8.2	8.5	8.3	8.5	8.3
15	8.0	8.0	8.3	8.2	8.1	8.0	8.3	8.2	8.4	8.3	8.4	8.3
16	8.0	7.9	8.3	8.2	8.0	7.9	8.4	8.2	8.4	8.2	8.4	8.3
17	8.0	7.9	8.3	8.2	8.1	7.9	8.3	8.2	8.4	8.2	8.4	8.3
18	8.1	7.9	8.2	8.2	8.0	7.9	8.3	8.2	8.4	8.2	---	---
19	8.0	8.0	8.2	8.1	8.0	7.9	8.3	8.2	8.3	8.1	---	---
20	8.1	8.0	8.2	8.1	8.0	7.9	8.3	8.2	8.3	8.1	---	---
21	8.1	8.0	8.2	8.1	---	---	8.3	8.2	8.3	8.2	---	---
22	8.1	8.0	8.2	8.0	---	---	8.4	8.3	8.3	8.2	---	---
23	8.1	8.1	8.1	8.0	---	---	8.4	8.3	8.4	8.2	---	---
24	8.2	8.1	8.2	8.0	---	---	8.4	8.3	8.4	8.2	---	---
25	8.2	8.1	8.2	8.1	---	---	8.5	8.3	8.4	8.1	---	---
26	8.2	8.1	8.2	8.0	---	---	8.5	8.3	8.3	8.1	---	---
27	8.2	8.1	8.1	8.0	---	---	8.5	8.3	8.3	8.1	---	---
28	8.2	8.2	8.1	8.0	---	---	8.5	8.4	8.3	8.1	---	---
29	8.3	8.2	8.1	8.1	---	---	8.5	8.3	8.4	8.2	---	---
30	8.3	8.2	8.1	8.0	---	---	8.5	8.3	---	---	8.4	8.2
31	8.3	8.2	---	---	---	---	8.4	8.3	---	---	8.4	8.2
MONTH	8.5	7.9	8.4	8.0	8.8	7.9	8.5	8.2	8.5	8.1	8.6	8.1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.4	8.2	8.1	7.9	8.6	8.6	8.4	7.9	8.8	7.3	8.7	7.8
2	8.4	8.2	8.1	7.8	8.6	8.5	8.5	7.2	8.1	7.7	8.7	7.8
3	8.4	8.2	8.2	7.9	8.6	8.5	8.5	7.2	8.6	7.8	8.7	7.8
4	8.5	8.2	8.1	7.9	8.6	8.4	8.3	7.6	8.7	7.8	8.8	7.9
5	8.5	8.2	8.1	7.9	8.5	8.4	8.3	7.7	8.6	7.7	8.7	7.9
6	8.6	8.3	8.2	8.0	8.5	8.4	8.4	7.7	8.4	7.7	8.9	8.0
7	8.6	8.2	8.2	8.0	8.5	8.3	8.5	7.9	8.7	7.7	8.6	8.0
8	8.6	8.2	8.3	8.0	8.4	8.3	8.7	8.2	8.7	7.7	8.8	8.3
9	8.5	8.2	8.4	8.1	8.4	8.3	8.8	8.2	8.6	8.0	8.7	8.0
10	8.6	8.2	8.3	8.1	8.4	8.3	8.6	8.2	8.9	7.9	8.6	8.0
11	8.5	8.2	8.3	8.1	8.4	8.2	8.5	8.1	8.9	7.9	8.4	8.0
12	8.4	8.2	8.3	8.2	8.4	8.2	8.4	8.1	8.9	7.9	8.7	8.0
13	8.5	8.2	8.2	8.1	8.4	8.2	8.4	8.1	8.6	7.9	8.8	8.1
14	8.6	8.1	8.2	8.1	8.4	8.2	8.4	8.0	8.5	7.9	8.5	7.9
15	8.7	8.1	8.2	8.1	8.5	8.3	8.5	8.0	8.6	7.8	8.2	7.9
16	8.4	7.9	8.2	8.1	8.5	8.3	8.4	8.0	8.7	7.8	8.3	7.9
17	8.5	7.9	8.2	8.1	8.6	8.3	8.6	7.9	8.6	7.8	8.3	7.9
18	8.2	7.9	8.2	8.2	8.6	8.4	8.7	7.9	8.6	7.7	8.4	7.9
19	8.1	7.9	8.3	8.2	8.7	8.4	8.6	7.9	8.5	7.7	8.5	8.0
20	7.9	7.8	8.3	8.2	8.5	8.3	8.8	7.9	8.6	7.6	8.4	8.0
21	7.9	7.8	8.3	8.2	8.6	8.3	8.6	7.9	8.2	7.6	8.4	8.0
22	8.0	7.8	8.3	8.3	8.5	8.2	8.9	7.9	8.4	7.7	8.4	8.0
23	8.3	7.9	8.4	8.3	8.4	8.2	8.7	7.9	8.8	7.6	8.4	8.0
24	8.1	7.9	8.4	8.3	8.5	8.2	8.5	7.8	8.8	8.2	8.3	8.0
25	8.2	7.9	8.4	8.3	8.5	8.1	8.5	7.9	9.4	8.2	8.3	7.9
26	8.1	7.9	8.5	8.4	8.5	8.0	8.6	8.1	9.0	8.1	8.3	7.9
27	8.1	7.9	8.5	8.4	8.5	8.1	8.5	8.1	8.9	7.8	8.3	8.0
28	8.0	7.8	8.6	8.4	8.6	8.2	8.9	8.0	8.5	7.8	8.3	7.9
29	8.1	7.9	8.6	8.5	8.6	8.2	8.8	8.0	8.5	7.8	8.2	7.9
30	8.1	7.9	8.6	8.5	8.5	8.1	8.9	7.9	8.6	7.8	8.3	7.9
31	---	---	8.6	8.5	---	---	8.7	7.9	8.7	7.8	---	---
MONTH	8.7	7.8	8.6	7.8	8.7	8.0	8.9	7.2	9.4	7.3	8.9	7.8
YEAR	9.4	7.2										

B OPY AVAILABLE

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	6.0	.5	---	.5	1.0	1.0	5.0	10.5	16.0	16.0	16.0
2	10.5	6.0	.5	---	.5	1.0	.5	5.0	11.0	16.5	15.5	14.5
3	9.5	6.0	.5	---	.5	1.0	1.0	5.0	11.0	16.5	15.5	14.5
4	9.5	5.0	.5	---	.5	.5	2.0	5.5	10.5	17.5	16.0	14.5
5	10.0	6.0	.5	---	.5	.5	3.0	5.0	10.5	17.5	16.0	15.0
6	10.0	5.5	.5	.5	.5	.5	3.5	5.0	9.5	17.5	16.0	15.5
7	10.0	5.5	1.0	.5	.5	1.0	4.0	3.5	9.5	16.5	16.0	14.5
8	10.0	3.0	1.0	1.0	.5	1.0	4.5	5.0	9.0	16.5	16.0	13.0
9	9.5	1.5	1.0	.5	.5	1.0	3.0	6.5	10.0	16.5	15.5	15.0
10	9.0	2.0	1.0	.5	1.0	1.0	4.5	6.5	9.5	16.5	15.5	15.0
11	8.0	3.0	1.0	.5	.5	1.0	3.5	6.5	12.0	16.5	16.0	14.0
12	7.5	3.5	1.0	.5	.5	1.0	2.5	6.5	13.5	16.0	15.5	14.5
13	7.0	3.5	.5	.5	1.0	1.0	3.5	7.0	13.5	16.0	16.0	14.5
14	7.0	2.0	.5	.0	1.0	1.0	3.5	6.5	14.0	17.0	16.0	12.0
15	6.5	2.0	.5	.0	.5	1.0	4.0	7.5	14.0	16.0	16.5	11.0
16	5.0	2.5	.0	.5	.5	1.0	4.0	7.5	14.0	16.5	17.5	11.5
17	6.0	3.5	.0	.5	.5	.5	5.0	7.5	13.5	17.0	18.0	12.5
18	7.0	2.0	.0	.5	.5	---	4.0	7.0	14.5	17.0	17.0	13.0
19	6.5	1.0	.0	.5	.5	---	4.0	7.5	14.5	17.5	17.0	14.0
20	5.5	1.0	.0	.5	.5	---	1.0	8.5	13.5	18.0	16.5	13.5
21	6.0	1.0	---	.5	1.0	---	.5	9.5	14.0	18.5	15.5	13.0
22	6.0	.5	---	.5	1.0	---	1.5	9.0	14.0	19.0	16.0	12.5
23	6.5	.5	---	.5	.5	---	3.5	10.5	12.0	20.0	15.5	12.5
24	5.0	.5	---	.5	.5	---	3.5	11.0	13.5	19.0	15.0	10.5
25	4.5	1.0	---	.5	.5	---	3.5	10.5	13.0	18.0	15.0	7.5
26	5.0	.0	---	.5	.5	---	3.0	11.0	13.5	16.0	15.5	8.5
27	5.5	.0	---	.5	.5	---	2.0	11.0	14.5	16.5	16.0	9.0
28	5.5	.0	---	.5	.5	---	1.5	10.0	16.0	17.0	16.0	5.5
29	5.0	.0	---	.5	1.0	---	3.0	10.5	16.5	17.0	16.5	5.0
30	6.0	.0	---	.5	---	1.5	4.0	11.5	15.5	17.0	16.0	6.0
31	6.0	---	---	.5	---	1.5	---	11.5	---	16.0	16.0	---
TOTAL	226.0	74.0	10.5	12.5	17.5	18.0	88.0	240.0	380.5	529.0	497.0	368.0
MEAN	7.5	2.5	.5	.5	.5	1.0	3.0	7.5	12.5	17.0	16.0	12.5
MAX	11.0	6.0	1.0	1.0	1.0	1.5	5.0	11.5	16.5	20.0	18.0	16.0
MIN	4.5	.0	.0	.0	.5	.5	.5	3.5	9.0	16.0	15.0	5.0

WTR YR 1984 TOTAL 2461.0 MEAN 7.5 MAX 20.0 MIN .0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	9.5	7.5	4.5	1.0	.5	---	---	1.5	.0	2.0	.5
2	13.5	8.5	8.0	5.0	1.5	.5	---	---	1.0	.0	2.5	.5
3	11.5	8.0	8.0	4.5	1.5	.0	---	---	1.0	.5	2.0	.5
4	11.5	7.5	7.5	3.5	1.0	.0	---	---	1.5	.0	.5	.5
5	12.5	8.0	7.5	4.0	1.0	.0	---	---	1.5	.0	.5	.5
6	12.0	8.0	7.5	4.0	1.0	.5	1.0	.5	1.5	.0	1.5	.5
7	12.0	8.5	8.0	4.0	1.5	.5	1.5	.5	1.5	.0	1.5	.5
8	11.0	9.0	5.0	1.0	1.5	.5	1.5	.5	1.5	.0	2.5	.5
9	11.0	7.5	3.5	.5	2.0	.5	1.0	.0	1.5	.5	2.0	.5
10	11.0	7.5	3.5	1.0	2.0	1.0	1.0	.0	2.5	.5	2.5	.5
11	9.0	7.0	4.5	1.5	2.0	1.0	1.0	.0	1.5	.5	1.5	.5
12	9.0	6.0	5.5	3.0	1.5	.5	1.0	.0	1.0	.5	3.0	.5
13	9.0	4.5	5.0	2.5	1.0	.5	.5	.0	2.0	.5	3.5	.5
14	9.0	6.0	3.5	1.0	.5	.5	.5	.0	2.0	.5	3.0	.5
15	8.5	4.5	2.5	1.0	.5	.0	.5	.0	1.5	.5	3.0	.5
16	7.0	3.5	4.0	1.5	.5	.0	.5	.0	1.5	.5	2.0	.5
17	8.0	4.0	5.0	2.0	.0	.0	.5	.0	1.5	.5	.5	.5
18	8.5	6.0	3.0	.5	.0	.0	.5	.0	1.0	.5	---	---
19	8.0	5.0	2.5	.5	.0	.0	.5	.0	1.0	.5	---	---
20	7.0	3.5	2.5	.5	.0	.0	.5	.0	1.5	.5	---	---
21	8.0	4.5	1.0	.5	---	---	.5	.0	2.0	.5	---	---
22	8.0	4.0	.5	.5	---	---	.5	.5	2.5	.5	---	---
23	8.5	4.5	.5	.5	---	---	.5	.5	2.0	.5	---	---
24	6.0	4.0	1.5	.5	---	---	.5	.5	1.5	.5	---	---
25	6.5	2.5	2.0	.5	---	---	.5	.5	2.0	.5	---	---
26	7.0	3.0	.5	.0	---	---	1.0	.5	.5	.5	---	---
27	8.0	4.0	.0	.0	---	---	1.0	.0	.5	.5	---	---
28	7.5	4.5	.0	.0	---	---	1.0	.5	1.0	.5	---	---
29	6.5	3.5	.5	.0	---	---	1.5	.5	1.5	.5	---	---
30	7.5	4.5	.5	.0	---	---	1.0	.0	---	---	2.5	.5
31	7.5	4.5	---	---	---	---	1.5	.0	---	---	2.5	.5
MONTH	13.5	2.5	8.0	.0	2.0	.0	1.5	.0	2.5	.0	3.5	.5

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.5	.5	7.0	2.5	12.0	10.0	19.5	12.5	19.0	15.0	17.5	14.5
2	1.5	.5	7.0	3.5	15.0	8.5	20.5	13.0	17.5	14.0	16.0	12.5
3	2.0	.5	9.0	2.5	13.0	8.5	21.0	13.0	19.0	13.0	16.5	12.0
4	4.0	.5	8.5	3.0	12.5	8.0	21.5	14.5	19.5	13.0	17.0	11.5
5	6.0	.5	7.5	3.0	12.0	9.5	21.5	13.5	19.5	13.0	18.0	12.5
6	6.5	.5	8.5	3.0	11.0	7.0	20.5	14.0	17.0	15.0	18.0	13.0
7	7.0	1.0	6.5	1.5	13.0	8.0	19.5	14.0	18.5	14.0	15.5	13.0
8	8.0	1.5	9.5	2.0	11.5	7.0	18.5	14.5	19.5	13.0	15.5	10.5
9	5.5	1.5	10.5	3.5	14.0	7.0	18.5	14.0	17.0	13.5	17.5	12.5
10	8.5	1.5	10.0	3.5	12.0	7.0	19.0	13.5	19.0	12.5	17.5	12.0
11	6.5	.5	10.0	4.0	16.0	9.0	19.5	13.0	19.5	13.0	15.0	12.5
12	6.5	.5	9.5	4.0	17.0	11.0	20.0	12.0	18.0	13.0	17.0	12.0
13	7.0	1.5	9.5	4.5	15.5	12.0	17.5	10.5	18.5	13.0	16.0	13.5
14	8.0	.5	8.0	5.0	17.0	11.0	20.5	14.0	17.5	14.0	14.5	10.5
15	8.5	.5	10.0	5.5	17.0	11.5	17.0	14.5	18.5	14.5	11.5	10.0
16	8.5	1.0	9.0	5.5	17.5	11.5	19.5	13.5	20.0	15.0	13.0	10.0
17	9.5	1.5	10.5	5.0	16.5	11.0	19.5	14.5	20.5	16.0	15.0	10.0
18	6.5	2.5	8.5	5.5	17.5	11.5	21.0	14.0	18.0	16.0	16.0	10.5
19	6.0	2.5	9.5	5.0	18.0	11.5	20.0	14.5	19.0	15.5	16.0	11.5
20	3.5	.5	12.5	6.0	16.5	12.0	20.5	15.0	18.5	15.5	15.0	11.5
21	3.5	.5	12.0	6.5	19.0	10.0	22.0	15.5	16.5	14.5	15.0	11.5
22	4.5	.5	11.0	7.0	17.5	10.5	23.0	15.5	17.5	14.5	14.5	11.0
23	8.0	.5	14.5	7.0	14.0	11.5	23.5	17.0	17.0	14.0	15.0	10.0
24	5.0	2.5	15.0	8.0	16.5	10.0	22.0	17.0	15.5	14.5	12.5	8.5
25	6.0	2.0	12.5	8.5	15.0	11.0	20.0	16.5	17.0	12.5	8.5	6.5
26	5.0	1.5	15.0	8.0	16.5	11.0	17.0	15.5	19.0	13.0	10.0	7.0
27	4.5	.5	14.5	8.0	17.5	11.5	19.5	14.5	19.5	13.5	11.0	7.5
28	3.5	.0	13.5	7.5	20.5	12.0	20.0	15.0	18.5	14.0	9.5	4.5
29	6.0	1.5	15.0	7.0	21.0	12.5	19.0	15.0	19.0	14.0	7.0	3.5
30	7.0	1.0	15.5	8.0	16.5	14.0	19.0	15.0	18.5	13.5	8.5	3.5
31	---	---	13.0	9.5	---	---	17.0	15.0	17.5	14.5	---	---
MONTH	9.5	.0	15.5	1.5	21.0	7.0	23.5	10.5	20.5	12.5	18.0	3.5
YEAR	23.5	.0										

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	8.6	10.9	---	11.2	10.5	10.1	9.5				
2	7.7	8.5	10.8	---	11.3	10.4	10.0	9.3				
3	8.0	8.6	10.7	---	11.3	10.4	10.0	9.5				
4	8.0	8.7	10.5	---	11.4	10.5	9.7	9.4				
5	7.9	8.6	10.6	---	11.4	10.5	9.4	9.4				
6	7.9	8.7	10.7	10.6	11.4	10.4	9.2	9.3				
7	7.7	8.7	10.7	10.6	11.5	10.4	9.0	9.9				
8	7.8	9.3	10.8	10.4	11.4	10.3	8.9	9.5				
9	8.0	9.8	10.6	10.6	11.4	10.3	9.0	9.1				
10	8.1	9.8	10.8	10.6	11.1	10.2	10.2	8.9				
11	8.3	9.6	10.8	10.5	11.2	10.2	10.3	8.9				
12	8.6	9.5	10.7	10.6	11.2	10.1	9.9	8.8				
13	8.7	9.5	10.8	10.7	11.0	10.2	9.9	9.3				
14	8.6	9.9	10.8	10.7	11.0	10.3	9.6	2.1				
15	8.9	10.0	10.7	10.7	11.1	10.6	9.6	2.7				
16	9.2	9.9	10.7	10.7	11.1	10.5	10.4	9.3				
17	9.2	9.8	10.8	10.8	11.0	10.5	10.1	9.7				
18	8.9	10.2	10.7	10.8	11.0	---	9.9	9.7				
19	8.8	10.5	10.5	10.8	11.1	---	9.6	9.4				
20	9.0	10.6	10.5	10.9	11.0	---	10.1	9.0				
21	8.9	10.8	---	10.9	10.8	---	10.2	3.9				
22	8.9	10.8	---	10.9	10.8	---	9.6	3.1				
23	8.7	11.0	---	10.9	10.8	---	8.8	2.8				
24	9.0	11.1	---	11.0	10.7	---	9.0	2.8				
25	9.2	11.2	---	11.0	10.6	---	9.8	2.8				
26	9.1	11.5	---	11.1	10.8	---	9.3	2.9				
27	8.9	11.3	---	11.1	10.8	---	9.2	3.6				
28	8.9	11.3	---	11.1	10.7	---	9.6	3.5				
29	9.0	11.2	---	11.2	10.6	---	9.4	3.3				
30	8.7	11.2	---	11.3	---	10.3	9.8	3.2				
31	8.7	---	---	11.3	---	10.3	---	3.3				
TOTAL	264.9	300.2	214.1	281.8	320.7	196.9	289.6	207.9				
MEAN	8.6	10.0	10.7	10.8	11.1	10.4	9.7	6.7				
MAX	9.2	11.5	10.9	11.3	11.5	10.6	10.4	9.9				
MIN	7.6	8.5	10.5	10.4	10.6	10.1	8.8	2.1				

WTR YR 1984 TOTAL 2076.1 MEAN 9.6 MAX 11.5 MIN 2.1

06719725 RALSTON CREEK NEAR PLAINVIEW, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.1	7.3	9.0	8.3	11.0	10.8	---	---	11.3	11.0	10.6	10.3
2	8.2	7.3	8.9	8.1	10.9	10.6	---	---	11.5	11.2	10.6	10.1
3	8.3	7.6	8.8	8.1	10.8	10.5	---	---	11.4	11.2	10.5	10.3
4	8.5	7.5	9.1	8.3	10.6	10.3	---	---	11.5	11.2	10.6	10.4
5	8.3	7.4	9.0	8.3	10.7	10.5	---	---	11.6	11.2	10.6	10.4
6	8.3	7.4	9.1	8.3	10.7	10.5	10.7	10.6	11.6	11.2	10.6	10.3
7	8.0	7.4	9.1	8.3	10.8	10.6	10.7	10.4	11.7	11.4	10.5	10.2
8	8.0	7.6	9.8	8.8	10.9	10.7	10.5	10.3	11.6	11.3	10.4	9.9
9	8.3	7.6	10.1	9.0	10.9	10.2	10.7	10.5	11.5	11.2	10.4	10.1
10	8.5	7.7	10.1	9.4	10.9	10.6	10.7	10.5	11.4	10.8	10.4	10.0
11	8.6	8.1	10.1	9.2	10.9	10.7	10.6	10.4	11.3	11.1	10.4	10.0
12	9.0	8.3	9.7	9.1	10.8	10.5	10.8	10.6	11.4	11.1	10.3	9.8
13	9.2	8.2	9.8	9.1	10.8	10.7	10.8	10.6	11.2	10.8	10.4	9.7
14	8.8	8.3	10.1	9.6	10.8	10.7	10.9	10.6	11.1	10.7	10.6	10.0
15	9.2	8.5	10.1	9.9	10.8	10.7	10.8	10.6	11.2	10.9	10.7	10.2
16	9.6	8.9	10.2	9.6	10.8	10.7	10.8	10.6	11.3	10.8	10.7	10.1
17	9.6	8.9	10.1	9.4	10.8	10.7	10.8	10.6	11.2	10.8	10.5	10.4
18	9.4	8.3	10.6	9.9	10.8	10.6	10.9	10.7	11.2	10.9	---	---
19	9.1	8.4	10.8	10.2	10.6	10.4	10.9	10.8	11.3	10.9	---	---
20	9.4	8.7	10.7	10.4	10.5	10.4	11.0	10.9	11.2	10.8	---	---
21	9.2	8.5	11.0	10.7	---	---	11.0	10.8	11.0	10.6	---	---
22	9.3	8.4	11.1	10.5	---	---	11.0	10.8	10.9	10.5	---	---
23	9.1	8.2	11.3	10.6	---	---	11.0	10.9	11.0	10.5	---	---
24	9.3	8.8	11.3	10.8	---	---	11.1	11.0	11.0	10.6	---	---
25	9.6	8.7	11.4	10.9	---	---	11.1	10.9	10.8	10.4	---	---
26	9.5	8.6	11.6	11.2	---	---	11.2	10.9	10.9	10.6	---	---
27	9.3	8.3	11.4	11.2	---	---	11.2	11.0	11.0	10.8	---	---
28	9.1	8.5	11.3	11.2	---	---	11.2	11.0	10.9	10.7	---	---
29	9.4	8.6	11.3	11.2	---	---	11.3	11.0	10.7	10.5	---	---
30	9.1	8.4	11.2	11.1	---	---	11.4	11.1	---	---	10.6	10.0
31	9.0	8.3	---	---	---	---	11.4	11.1	---	---	11.9	9.9
MONTH	9.6	7.3	11.6	8.1	11.0	10.2	11.4	10.3	11.7	10.4	11.9	9.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.3	10.0	10.2	9.1								
2	10.2	9.9	9.8	8.4								
3	10.1	9.8	10.2	8.6								
4	10.0	9.2	10.0	8.7								
5	9.9	8.7	10.0	8.8								
6	9.8	8.4	9.8	8.5								
7	9.6	8.3	10.4	9.2								
8	9.5	8.0	10.4	8.5								
9	9.4	8.4	9.8	8.2								
10	11.1	9.1	9.7	8.1								
11	11.0	9.1	9.4	8.2								
12	10.9	9.0	9.3	8.2								
13	10.9	8.9	10.0	8.5								
14	10.8	8.8	---	---								
15	10.7	8.7	---	---								
16	11.0	9.5	9.8	8.3								
17	10.9	9.0	10.3	9.2								
18	10.3	9.4	10.0	9.4								
19	10.0	9.1	10.0	8.8								
20	10.5	9.4	9.2	8.1								
21	10.3	10.1	---	---								
22	9.9	8.9	---	---								
23	9.5	7.8	---	---								
24	11.7	8.1	---	---								
25	10.7	9.3	---	---								
26	10.2	8.2	---	---								
27	10.2	8.2	---	---								
28	10.2	8.9	---	---								
29	10.0	8.7	---	---								
30	10.6	9.1	---	---								
31	---	---	---	---								
MONTH	11.7	7.8	10.4	8.1								
YEAR	11.9	7.3										

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NEAR PLAINVIEW, CO

LOCATION.--Lat 39°50'37", long 105°16'33", SE¼SE¼ sec.25, T.2 S., R.71 W., Jefferson County, Hydrologic Unit 10190004, on right bank 100 ft downstream from Cotter Corporation property line, 3.2 mi south Plainview.

DRAINAGE AREA.--38.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1983 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by inflow from Schwartzwalder Mine.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 302 ft³/s at 0915 May 25, 1983, gage height, 4.03 ft; minimum daily, 2.0 ft³/s Feb. 10, 11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 173 ft³/s at 2245 May 13, gage height, 3.57 ft; minimum daily, 2.3 ft³/s, Oct. 7, 11, 13, 15-19, 21, Sept. 13, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.7	3.0	2.9	3.6	4.6	8.3	40	27	7.6	15	3.7
2	2.4	2.7	3.0	2.9	3.5	4.7	8.0	54	27	6.6	20	3.7
3	2.4	2.7	3.0	2.9	3.8	4.8	8.0	65	25	6.0	13	3.6
4	2.4	2.7	3.0	2.9	3.8	4.0	8.0	80	24	5.5	11	3.3
5	2.4	2.7	3.0	2.9	3.9	5.0	8.6	85	23	5.0	9.3	3.1
6	2.5	2.8	3.0	3.0	4.0	4.8	11	84	22	4.8	8.5	2.8
7	2.3	2.8	3.1	3.1	4.0	4.7	13	78	23	4.8	8.9	2.7
8	2.4	3.0	3.0	3.3	4.0	4.8	17	74	21	4.6	7.7	2.8
9	2.4	3.0	3.0	3.4	4.0	4.8	22	76	19	4.7	7.0	2.7
10	2.4	3.1	2.9	3.1	4.0	4.8	22	83	18	7.0	6.5	2.5
11	2.3	3.2	2.9	3.4	4.0	5.2	26	103	18	6.0	5.8	2.4
12	2.4	3.2	2.9	3.3	3.9	5.2	23	127	17	4.8	5.4	2.4
13	2.3	3.2	2.9	3.3	4.1	5.5	23	155	17	4.3	5.2	2.3
14	2.4	3.1	2.9	3.3	4.2	6.5	21	160	17	4.2	5.2	2.4
15	2.3	2.8	3.0	3.3	4.2	7.8	22	149	15	4.2	5.0	2.6
16	2.3	3.0	3.0	3.3	4.0	7.9	24	144	15	4.6	4.8	2.8
17	2.3	2.9	3.0	3.3	4.1	7.2	28	126	15	4.1	4.8	2.7
18	2.3	3.1	2.9	3.3	4.2	7.0	31	107	14	3.8	5.4	2.5
19	2.3	3.0	2.9	3.3	4.4	6.5	31	93	12	3.5	5.3	2.4
20	2.4	3.3	2.8	3.3	4.4	6.7	30	84	14	3.3	5.9	2.4
21	2.3	3.3	2.8	3.3	4.4	7.4	24	88	15	3.3	7.1	2.3
22	2.4	3.0	2.8	3.3	4.7	7.8	30	87	11	3.2	7.1	2.4
23	2.4	3.0	2.8	3.3	4.4	7.7	31	76	10	3.4	6.0	2.4
24	2.5	3.0	2.8	3.3	4.6	7.8	41	61	9.9	4.1	5.6	2.5
25	2.5	3.3	2.9	3.3	4.4	8.7	52	62	9.1	6.7	5.4	2.7
26	2.5	2.9	2.9	3.3	4.6	9.1	67	50	9.0	9.0	5.2	2.7
27	2.5	2.9	2.9	3.3	4.7	9.0	55	42	7.9	9.9	4.6	2.7
28	2.5	3.0	2.9	3.3	4.7	9.0	46	35	6.8	6.9	4.1	3.0
29	2.6	3.1	2.9	3.5	4.6	9.0	39	31	6.5	8.6	3.8	3.2
30	2.7	3.1	2.9	3.5	---	8.5	34	28	6.4	6.8	3.7	3.7
31	2.7	---	3.0	3.5	---	8.3	---	28	---	7.0	3.6	---
TOTAL	74.9	89.6	90.8	100.4	121.2	204.8	803.9	2555	474.6	168.3	215.9	83.4
MEAN	2.42	2.99	2.93	3.24	4.18	6.61	26.8	82.4	15.8	5.43	6.96	2.78
MAX	2.7	3.3	3.1	3.5	4.7	9.1	67	160	27	9.9	20	3.7
MIN	2.3	2.7	2.8	2.9	3.5	4.0	8.0	28	6.4	3.2	3.6	2.3
AC-FT	149	178	180	199	240	406	1590	5070	941	334	428	165

WTR YR 1984 TOTAL 4982.8 MEAN 13.6 MAX 160 MIN 2.3 AC-FT 9880

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW,CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1983 to September 1984.

PERIOD OF DAILY RECORD.--February 1983 to September 1984.
SPECIFIC CONDUCTANCE: February 1983 to September 1984.
pH: February 1983 to September 1984.
WATER TEMPERATURES: February 1983 to September 1984.
DISSOLVED OXYGEN: February 1983 to September 1984.

INSTRUMENTATION.--Water quality monitor since February 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 1,040, micromhos Sept. 19, 1984; minimum, 89 micromhos May 19, 1984.
pH: Maximum, 9.3 units Mar. 28, 1984; minimum, 7.5 units Aug. 1, 1984.
WATER TEMPERATURES: Maximum, 26.5°C July 22, 1984; minimum, 0.5°C Jan. 15, 1984.
DISSOLVED OXYGEN: Maximum 11.1 mg/L Mar. 22, 1984; minimum, 5.8 mg/L July 7, 10, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC												
06...	0300	3.4	767	8.3	3.5	9.9	39	14	95	3.4	142	200
06...	1600	3.3	683	8.3	5.5	9.2	38	13	--	--	131	--
07...	0100	3.3	667	8.2	5.0	9.8	34	12	--	--	127	--
07...	1100	3.3	792	8.5	7.0	9.2	38	14	92	3.5	139	220
07...	1930	3.4	728	8.2	6.0	9.4	35	13	--	--	134	--
08...	0030	3.4	688	8.2	6.0	9.5	34	12	--	--	131	--
08...	0930	3.3	703	8.5	7.5	9.8	36	13	--	--	131	--
08...	1230	3.3	718	8.5	7.5	9.4	44	16	88	5.8	124	200
09...	0830	3.4	693	8.4	7.0	9.7	38	13	--	--	130	--
MAY												
14...	0910	159	97	7.6	6.5	9.6	11	3.7	6.2	1.9	26	18
15...	0300	151	98	8.4	8.0	9.5	9.2	3.2	6.2	1.8	28	20
15...	2100	146	98	8.3	9.0	9.0	10	2.9	--	--	26	--
16...	0710	148	96	7.6	6.5	9.7	8.9	3.0	--	--	26	--
16...	1730	140	103	8.1	10.0	8.7	10	3.0	--	--	28	--
17...	1330	122	103	7.6	9.5	9.0	9.0	3.0	--	--	27	--
17...	2230	117	103	8.2	9.0	9.2	9.1	2.8	--	--	28	--
18...	0430	113	103	8.0	6.5	9.5	9.1	2.9	--	--	29	--
18...	1900	103	103	8.1	7.5	9.4	10	3.0	7.0	1.5	27	19
AUG												
27...	1120	4.4	497	8.5	19.0	7.6	29	10	57	2.5	111	120
27...	1900	4.4	570	8.3	20.0	6.7	31	11	--	--	120	--
27...	2100	4.4	580	8.3	19.0	7.0	32	11	--	--	119	--
28...	1500	3.9	598	8.5	22.0	6.8	35	13	--	--	119	--
29...	0300	4.0	650	8.3	17.5	6.9	35	13	--	--	125	--
29...	0930	3.9	643	8.3	17.0	7.7	36	13	--	--	130	--
31...	0100	3.7	750	8.3	18.5	6.8	39	15	83	3.2	135	190
31...	0500	3.7	775	8.3	17.5	6.9	40	15	--	--	139	--
31...	1305	3.7	716	8.5	21.0	7.4	40	15	81	3.4	133	200

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
DEC											
06...	18	499	--	<.010	1.7	.080	.62	.70	2.4	<.010	<.010
06...	--	472	--	--	--	--	--	--	--	--	--
07...	--	445	--	--	--	--	--	--	--	--	--
07...	17	521	--	<.010	2.7	.070	1.0	1.1	3.8	<.010	.010
07...	--	485	--	--	--	--	--	--	--	--	--
08...	--	457	--	--	--	--	--	--	--	--	--
08...	--	467	--	--	--	--	--	--	--	--	--
08...	26	478	2.3	.060	2.4	.170	1.8	2.0	4.4	.190	.050
09...	--	456	--	--	--	--	--	--	--	--	--
MAY											
14...	2.8	81	.19	.010	.20	.040	.16	.20	.40	.100	.030
15...	3.0	110	.19	.010	.20	.060	1.1	1.2	1.4	.080	.030
15...	--	75	--	--	--	--	--	--	--	--	--
16...	--	86	--	--	--	--	--	--	--	--	--
16...	--	92	--	--	--	--	--	--	--	--	--
17...	--	90	--	--	--	--	--	--	--	--	--
17...	--	88	--	--	--	--	--	--	--	--	--
18...	--	92	--	--	--	--	--	--	--	--	--
18...	2.9	100	--	<.010	.20	.040	.56	.60	.80	.040	.020
AUG											
27...	11	329	--	<.010	1.0	<.010	--	.30	1.3	.010	.020
27...	--	373	--	--	--	--	--	--	--	--	--
27...	--	360	--	--	--	--	--	--	--	--	--
28...	--	393	--	--	--	--	--	--	--	--	--
29...	--	420	--	--	--	--	--	--	--	--	--
29...	--	424	--	--	--	--	--	--	--	--	--
31...	15	464	2.1	.020	2.1	.200	40	.60	2.7	.010	.020
31...	--	488	--	--	--	--	--	--	--	--	--
31...	14	480	[illegible]	<.010	<.10	<.010	--	--	--	<.010	.020

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC									
06...	4	<100	190	<10	3	3	170	22	1
06...	--	--	--	--	4	2	150	20	2
07...	--	--	--	--	3	2	160	9	2
07...	5	100	190	<10	4	2	280	17	2
07...	--	--	--	--	13	2	150	18	6
08...	--	--	--	--	15	1	170	21	5
08...	--	--	--	--	13	2	160	15	2
08...	25	300	180	--	51	2	16000	13	200
09...	--	--	--	--	4	1	210	20	1
MAY									
14...	4	<100	20	--	10	1	4900	90	<1
15...	<1	<100	20	--	8	4	4200	550	9
15...	--	--	--	--	9	3	3300	320	3
16...	--	--	--	--	8	3	3100	370	<1
16...	--	--	--	--	7	2	2700	320	<1
17...	--	--	--	--	8	3	2400	340	3
17...	--	--	--	--	7	2	2400	380	5
18...	--	--	--	--	7	2	2400	450	<1
18...	<1	<100	10	--	7	3	2100	400	<1
AUG									
27...	2	<100	120	--	4	3	300	80	<1
27...	--	--	--	--	13	2	220	80	2
27...	--	--	--	--	7	3	220	70	3
28...	--	--	--	--	4	3	190	60	<1
29...	--	--	--	--	4	2	190	50	4
29...	--	--	--	--	3	3	160	50	2
31...	4	<100	160	--	5	1	140	50	3
31...	--	--	--	--	5	2	160	50	4
31...	3	<100	160	--	4	1	190	60	4

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
DEC									
06...	2	10	3	.1	190	9	--	--	20
06...	<1	10	3	--	--	--	--	--	--
07...	<1	10	6	--	--	--	--	--	--
07...	<1	10	3	<.1	180	7	--	--	10
07...	1	20	3	--	--	--	--	--	--
08...	1	20	3	--	--	--	--	--	--
08...	2	10	5	--	--	--	--	--	--
08...	<1	420	12	.1	370	27	--	--	190
09...	<1	30	5	--	--	--	<1	<1	--
MAY									
14...	1	180	<10	.2	8	3	--	--	60
15...	<1	170	<10	<.1	8	11	--	--	30
15...	3	140	<10	--	--	--	--	--	--
16...	<1	120	<10	--	--	--	--	--	--
16...	<1	100	<10	--	--	--	--	--	--
17...	3	80	<10	--	--	--	--	--	--
17...	<1	90	<10	--	--	--	--	--	--
18...	<1	90	<10	--	--	--	--	--	--
18...	<1	80	<10	<.1	9	8	--	--	50
AUG									
27...	4	20	<10	<.1	140	1	--	--	10
27...	1	10	<10	--	--	--	--	--	--
27...	<1	10	<10	--	--	--	--	--	--
28...	1	10	<10	--	--	--	--	--	--
29...	2	20	<10	--	--	--	--	--	--
29...	1	20	<10	--	--	--	--	--	--
31...	2	<10	<10	.1	260	17	--	--	10
31...	<1	<10	<10	--	--	--	--	--	--
31...	4	<10	<10	<.1	190	18	--	--	20

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	URANIUM NATURAL TOTAL (UG/L AS U)
DEC					
06...	--	--	--	60	58
06...	--	--	--	53	46
07...	--	--	--	55	54
07...	1.6	3.5	3.3	52	54
07...	--	--	--	51	48
08...	--	--	--	56	51
08...	--	--	--	50	50
08...	--	--	--	130	360
09...	--	--	--	43	49
MAY					
14...	--	--	--	3.8	7.7
15...	--	--	--	4.4	7.0
15...	--	--	--	4.6	5.7
16...	--	--	--	3.2	5.8
16...	--	--	--	3.1	6.3
MAY					
17...	--	--	--	2.7	4.4
17...	--	--	--	2.7	3.9
18...	--	--	--	2.9	4.9
18...	--	--	--	4.9	4.8
AUG					
27...	--	--	--	21	23
27...	--	--	--	22	21
27...	--	--	--	23	20
28...	--	--	--	25	22
29...	--	--	--	24	20
29...	--	--	--	25	25
31...	--	--	--	26	25
31...	--	--	--	29	26
31...	--	--	--	29	26

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY				
06...	0300	3.4	0	.00
06...	1600	3.3	1	.00
07...	0100	3.3	0	.00
07...	1100	3.3	6	.05
07...	1930	3.4	0	.00
08...	0030	3.4	22	.20
08...	0930	3.3	1	.00
08...	1230	3.3	188	1.7
09...	0830	3.4	1	.00
MAY				
14...	0910	159	128	55
15...	0300	151	95	39
15...	1315	162	62	27
16...	0710	148	68	27
16...	1730	140	54	20
MAY				
17...	1330	122	44	14
17...	2230	117	56	18
18...	0430	113	40	12
18...	1900	103	36	10
AUG				
31...	1305	3.7	12	.12
27...	1120	4.4	6	.07
27...	1900	4.4	2	.02
27...	2100	4.4	10	.12
28...	1500	3.9	18	.19
29...	0300	4.0	16	.17
29...	0930	3.9	18	.19
31...	0100	3.7	17	.17
31...	0500	3.7	12	.12

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	897	824	621	812	769	670	370	170	187	376	398	720
2	887	829	636	804	651	634	372	155	193	403	269	702
3	848	796	641	785	798	591	376	153	203	449	322	707
4	807	795	638	---	801	638	404	154	205	498	345	737
5	773	772	653	---	830	584	402	146	211	517	341	784
6	828	707	675	700	778	591	386	154	212	536	334	821
7	837	683	742	701	737	620	375	157	5890	564	369	880
8	827	663	688	696	703	639	362	158	5900	585	396	857
9	797	692	675	673	720	619	227	156	5900	559	419	874
10	778	610	550	731	720	614	213	142	5910	423	438	897
11	811	574	787	704	733	557	196	119	5850	474	473	930
12	759	542	746	741	742	550	212	104	5840	574	496	945
13	778	549	745	737	709	499	212	104	247	638	493	961
14	739	552	782	724	742	422	224	98	264	648	489	911
15	803	[illegible]	797	627	724	338	207	99	276	652	511	792
16	794	[illegible]	788	774	761	320	221	98	281	589	521	829
17	809	[illegible]	720	731	757	354	201	100	291	648	511	877
18	810	633	864	753	757	345	191	101	306	721	467	890
19	783	685	827	784	730	372	193	105	327	772	462	926
20	794	647	803	789	768	367	182	110	286	804	506	---
21	796	608	839	779	738	349	---	---	264	849	396	---
22	805	714	861	761	692	330	---	---	300	878	401	---
23	791	670	826	762	733	332	---	---	315	806	460	---
24	810	664	886	766	707	349	---	---	316	741	513	---
25	817	632	825	763	718	321	---	---	331	479	509	---
26	825	656	785	767	699	319	161	---	323	465	526	---
27	815	671	789	765	677	330	162	---	340	375	564	---
28	848	614	774	771	670	383	170	---	381	447	621	---
29	826	602	794	761	658	373	174	---	396	386	656	---
30	795	608	764	790	---	373	177	183	426	439	711	---
31	789	---	795	797	---	369	---	184	---	436	733	---
TOTAL	25076	19954	23316	21748	21222	14152	6370	2950	42171	17731	14670	16040
MEAN	809	665	752	750	732	457	255	134	1410	572	473	844
MAX	897	829	886	812	830	670	404	184	5910	878	733	961
MIN	739	542	550	627	651	319	161	98	187	375	269	702

WTR YR 1984 TOTAL 225400 MEAN 665 MAX 5910 MIN 98

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	995	755	878	618	649	509	890	641	798	654	784	484
2	962	712	870	620	678	518	850	680	815	456	719	469
3	909	649	868	658	677	527	810	690	862	696	674	504
4	916	466	837	617	675	525	---	---	881	625	769	449
5	953	393	815	675	714	524	---	---	907	697	694	434
6	960	560	764	564	733	553	734	600	825	670	649	489
7	993	653	752	522	792	602	727	598	819	503	743	573
8	926	576	711	491	728	578	734	573	795	485	693	493
9	859	589	799	539	703	573	710	558	837	437	672	592
10	932	562	668	458	714	384	894	569	798	488	691	501
11	885	605	606	416	845	685	760	567	850	490	600	480
12	828	538	585	405	786	606	830	570	852	442	639	479
13	862	572	593	413	807	607	823	569	754	504	598	328
14	835	545	692	382	817	637	768	620	815	505	497	327
15	888	618	820	540	818	678	763	413	817	457	396	226
16	851	611	686	476	819	679	812	672	889	499	355	235
17	954	524	711	491	830	490	767	648	891	491	434	274
18	877	597	687	447	921	721	799	672	823	513	373	294
19	849	599	752	532	872	722	833	687	814	414	433	293
20	861	591	768	458	852	702	838	673	856	556	422	322
21	864	554	713	463	882	732	822	699	818	518	391	291
22	876	626	809	539	922	772	817	633	763	513	360	280
23	858	608	724	504	981	581	802	661	958	498	359	289
24	890	590	700	500	971	741	799	655	883	443	388	318
25	892	612	666	566	851	811	802	668	848	498	327	277
26	905	615	731	611	821	671	794	658	873	433	356	276
27	847	647	737	587	831	701	796	636	738	528	365	315
28	909	689	642	552	841	601	804	649	733	483	436	336
29	871	641	628	558	841	681	864	495	728	489	406	366
30	853	613	683	473	811	711	844	660	---	---	377	367
31	856	606	---	---	891	701	841	669	---	---	378	338
MONTH	995	393	878	382	981	384	894	413	958	414	784	226

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06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR, PLAINVIEW, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	379	339	194	144	214	144	420	350	510	180	828	468
2	379	369	173	123	213	153	442	292	310	220	779	509
3	410	370	172	122	282	153	495	325	360	240	770	530
4	441	371	162	132	222	162	547	357	560	270	801	551
5	422	372	152	142	231	151	590	350	390	230	902	562
6	422	372	172	132	240	160	602	362	460	200	983	473
7	383	373	172	132	---	---	645	425	400	260	954	654
8	384	234	172	132	---	---	647	437	430	290	925	615
9	245	175	172	142	---	---	630	400	470	300	965	735
10	245	135	152	122	---	---	632	292	488	329	976	666
11	236	176	132	102	---	---	545	355	507	337	977	727
12	247	137	122	92	---	---	647	377	536	356	1010	638
13	248	178	111	91	330	180	710	460	554	324	1030	709
14	248	178	111	91	296	186	732	472	543	323	990	660
15	249	139	111	91	311	211	715	475	541	361	889	419
16	250	150	100	90	317	217	647	397	560	350	957	497
17	230	160	110	90	313	223	730	470	589	329	936	686
18	210	150	110	90	398	229	782	502	537	347	985	665
19	210	160	119	89	354	264	835	525	536	366	1040	674
20	200	170	119	99	330	200	897	497	654	354	---	---
21	---	---	---	---	297	197	920	670	453	303	---	---
22	---	---	---	---	334	224	932	832	451	291	---	---
23	---	---	---	---	351	231	905	575	520	350	---	---
24	---	---	---	---	349	239	620	547	561	361	---	---
25	---	---	---	---	376	236	600	310	572	352	---	---
26	168	138	---	---	363	233	610	270	593	393	---	---
27	177	127	---	---	370	230	510	280	614	394	---	---
28	186	136	---	---	432	262	520	320	684	444	---	---
29	185	165	---	---	445	255	420	280	735	405	---	---
30	195	135	196	146	477	317	600	330	776	476	---	---
31	---	---	205	145	---	---	480	310	797	467	---	---
MONTH	441	127	205	89	477	144	932	270	797	180	1040	419
YEAR	1040	89										

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.6	8.2	8.6	8.2	8.6	8.1	8.7	8.2	8.5	8.1	8.5	8.2
2	8.6	8.3	8.6	8.2	8.6	8.1	8.6	8.3	8.4	7.8	8.5	8.2
3	8.7	8.2	8.6	8.2	8.6	8.1	8.4	8.2	8.4	8.2	8.3	8.2
4	8.6	8.2	8.6	8.2	8.6	8.1	---	---	8.4	8.2	8.4	8.2
5	8.6	8.2	8.7	8.2	8.7	8.2	---	---	8.4	8.1	8.4	8.1
6	8.5	8.0	8.7	8.2	8.6	8.1	8.5	8.3	8.5	8.2	8.4	8.2
7	8.5	7.8	8.7	8.2	8.6	8.2	8.6	8.2	8.4	8.2	8.5	8.2
8	8.4	7.9	8.4	8.1	8.6	8.1	8.7	8.2	8.5	8.2	8.6	8.3
9	8.4	8.1	8.7	8.2	8.7	8.2	8.7	8.2	8.4	8.2	8.9	8.3
10	8.5	8.1	8.6	8.1	8.5	7.9	8.7	8.2	8.5	8.2	8.5	8.3
11	8.5	8.1	8.6	8.1	8.6	8.2	8.6	8.2	8.5	8.2	8.5	8.3
12	8.5	8.1	8.6	8.2	8.6	8.2	8.6	8.2	8.5	8.2	8.5	8.3
13	8.5	8.1	8.7	8.2	8.6	8.2	8.6	8.1	8.5	8.2	8.5	8.3
14	8.5	8.1	8.6	8.2	8.6	8.1	8.6	8.2	8.5	8.2	8.4	8.2
15	8.5	8.1	8.8	8.2	8.6	8.1	8.6	7.9	8.4	8.2	8.4	8.2
16	8.6	8.1	8.6	8.2	8.6	8.1	8.6	8.2	8.4	8.1	8.4	8.1
17	8.5	7.7	8.8	8.2	8.6	7.9	8.5	8.2	8.5	8.2	8.5	8.1
18	8.3	7.9	8.4	8.1	8.6	8.1	8.5	8.1	8.4	8.2	8.5	8.2
19	8.3	8.0	8.7	8.2	8.6	8.0	8.6	8.2	8.4	8.2	8.6	8.2
20	8.4	8.2	8.7	8.1	8.5	8.1	8.5	8.1	8.4	8.3	8.6	8.2
21	8.4	8.2	8.5	8.1	8.5	8.1	8.6	8.1	8.6	8.2	8.5	8.2
22	8.4	8.2	8.6	8.1	8.6	8.1	8.5	8.2	8.4	8.2	8.3	8.1
23	8.5	8.2	8.6	8.2	8.5	8.0	8.5	8.1	8.4	8.1	8.5	8.2
24	8.4	8.2	8.6	8.2	8.5	8.2	8.5	8.1	8.3	8.2	8.5	8.1
25	8.4	8.2	8.7	8.2	8.6	8.2	8.5	8.1	8.4	8.2	8.3	8.1
26	8.5	8.2	8.6	8.2	8.6	8.2	8.5	8.1	8.4	8.1	8.4	8.2
27	8.5	8.2	8.6	8.2	8.6	8.2	8.5	8.1	8.4	8.2	8.4	8.2
28	8.6	8.2	8.6	8.1	8.5	8.2	8.4	8.1	8.5	8.2	9.3	8.2
29	8.5	8.2	8.5	8.1	8.5	8.1	8.5	7.9	8.4	8.2	8.6	8.3
30	8.5	8.0	8.5	8.1	8.8	8.2	8.5	8.1	---	---	8.4	8.3
31	8.6	8.2	---	---	8.6	8.3	8.4	8.2	---	---	8.4	8.2
MONTH	8.7	7.7	8.8	8.1	8.8	7.9	8.7	7.9	8.6	7.8	9.3	8.1

BEST COPY AVAILABLE

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.4	8.2	8.2	8.0	8.4	8.3	8.5	8.2	8.4	7.5	8.5	8.1
2	8.5	8.2	8.1	8.0	8.5	8.3	8.5	8.3	8.1	7.7	8.5	8.1
3	8.5	8.3	8.1	7.8	8.6	8.3	8.5	8.3	8.3	7.9	8.5	8.1
4	8.6	8.2	8.0	7.9	8.5	8.3	8.5	8.3	8.3	7.9	8.5	8.1
5	8.5	8.3	8.0	7.8	8.5	8.3	8.5	8.3	8.3	7.8	8.6	8.1
6	8.5	8.2	8.0	7.8	8.5	8.3	8.5	8.3	8.3	7.8	8.6	8.1
7	8.4	8.2	8.0	7.9	8.5	8.4	8.5	8.3	8.4	8.0	8.6	8.2
8	8.4	8.1	8.0	7.8	8.6	8.4	8.5	8.3	8.4	8.0	8.6	8.2
9	8.4	8.1	8.0	7.8	8.6	8.4	8.5	8.3	8.4	8.0	8.6	8.2
10	8.4	8.1	7.9	7.7	8.6	8.4	8.4	8.2	8.4	8.0	8.6	8.2
11	8.3	8.1	8.2	7.6	8.6	8.4	8.4	8.2	8.5	8.1	8.6	8.2
12	8.2	8.1	8.1	8.0	8.6	8.4	8.4	8.2	8.5	8.1	8.6	8.2
13	8.3	8.1	8.1	8.0	8.3	8.1	8.4	8.2	8.5	8.1	8.7	8.2
14	8.3	8.1	8.1	8.0	8.4	8.1	8.5	8.3	8.5	8.1	8.4	8.1
15	8.3	8.1	8.1	8.0	8.4	8.1	8.4	8.2	8.6	8.1	8.5	8.0
16	8.3	8.1	8.1	8.0	8.4	8.1	8.4	8.2	8.6	8.1	8.6	8.1
17	8.4	8.1	8.2	8.0	8.4	8.1	8.4	8.2	8.5	8.0	8.6	8.2
18	8.3	8.1	8.2	8.1	8.4	8.2	8.5	8.2	8.5	8.0	8.6	8.2
19	8.2	8.1	8.3	8.1	8.5	8.2	8.4	8.2	8.5	8.1	8.6	8.2
20	8.4	8.1	8.6	8.2	8.4	8.1	8.5	8.2	8.6	8.0	---	---
21	---	---	---	---	8.5	8.1	8.4	8.2	8.4	8.0	---	---
22	---	---	---	---	8.5	8.2	8.4	8.2	8.5	8.0	---	---
23	---	---	---	---	8.4	8.2	8.4	8.2	8.5	8.0	---	---
24	---	---	---	---	8.5	8.2	8.[illegible]	7.9	8.4	8.0	---	---
25	---	---	---	---	8.5	8.2	8.[illegible]	8.0	8.5	8.0	---	---
26	8.2	8.1	---	---	8.5	8.3	8.2	7.9	8.5	8.0	---	---
27	8.2	8.0	---	---	8.5	8.3	8.3	7.9	8.5	8.0	---	---
28	8.2	8.0	---	---	8.6	8.2	8.4	8.0	8.5	8.0	---	---
29	8.2	8.0	---	---	8.5	8.3	8.3	8.0	8.5	8.0	---	---
30	8.2	8.0	8.4	8.3	8.5	8.3	8.4	8.0	8.5	8.1	---	---
31	---	---	8.4	8.2	---	---	8.3	8.0	8.5	8.1	---	---
MONTH	8.6	8.0	8.6	7.6	8.6	8.1	8.5	7.9	8.6	7.5	8.7	8.0
YEAR	9.3	7.5										

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	13.0	6.0	6.5	6.5	7.5	4.0	6.0	11.5	17.5	18.0	19.0
2	15.5	12.5	6.5	7.0	4.0	7.5	3.0	5.5	12.0	18.5	16.0	17.5
3	15.0	12.5	6.0	7.0	6.0	6.5	3.5	6.5	12.0	18.5	17.0	17.5
4	14.5	12.0	5.5	---	6.5	5.5	5.5	6.0	12.0	20.0	17.5	18.0
5	15.5	12.0	5.0	---	7.0	5.0	6.0	5.0	11.5	20.0	17.5	19.5
6	15.0	11.0	5.0	6.5	7.0	5.5	5.5	5.0	9.0	20.0	17.0	20.0
7	15.0	11.5	6.0	6.5	6.5	5.5	6.0	3.5	30.0	19.5	17.5	18.5
8	14.5	8.0	6.5	6.5	7.0	6.5	6.0	4.5	30.0	19.0	18.0	17.5
9	14.0	7.5	7.0	6.0	6.5	6.0	4.5	5.5	30.0	19.0	17.5	19.0
10	13.5	8.0	4.5	6.0	7.0	6.5	5.5	5.5	30.0	18.5	18.0	19.5
11	13.0	8.5	7.5	5.5	6.5	6.0	4.0	5.5	29.5	19.0	18.5	18.5
12	13.0	8.0	6.5	5.5	4.5	6.5	3.5	5.5	29.5	19.0	18.0	19.5
13	13.0	8.0	6.5	5.0	6.5	6.5	4.5	6.0	15.5	19.0	18.5	19.5
14	12.5	7.0	6.5	4.0	7.5	6.0	4.5	6.0	15.0	20.0	19.0	16.5
15	12.0	8.0	6.0	2.5	7.0	5.0	4.5	6.5	15.0	19.0	19.5	15.5
16	11.5	8.5	6.0	5.5	7.0	4.0	5.0	6.5	15.0	19.5	20.0	16.0
17	12.5	9.5	4.5	3.5	6.0	5.0	5.5	7.0	14.5	20.0	20.5	18.0
18	13.5	7.5	5.5	3.5	6.0	4.0	5.0	6.5	15.5	20.5	19.0	18.0
19	13.0	7.0	5.5	5.0	5.5	6.0	4.5	7.0	15.5	20.5	19.0	19.0
20	12.5	7.0	4.0	5.0	6.5	6.5	3.5	8.5	15.0	21.5	18.5	---
21	12.5	6.0	4.0	5.5	7.5	6.0	---	---	15.5	21.5	17.0	---
22	12.5	6.5	4.0	5.5	7.0	3.0	---	---	16.0	22.0	17.5	---
23	12.5	5.5	3.0	5.0	6.0	3.5	---	---	14.0	22.0	17.5	---
24	11.5	5.5	3.5	5.0	6.0	5.5	---	---	15.0	20.5	17.0	---
25	11.5	6.5	5.5	6.0	5.5	3.0	---	---	15.0	19.5	17.5	---
26	12.0	4.5	6.5	6.0	5.0	4.0	4.0	---	15.5	18.0	18.0	---
27	12.5	4.5	6.0	5.5	5.5	3.5	2.5	---	16.0	18.0	19.0	---
28	12.5	5.0	4.5	6.0	6.0	4.0	2.5	---	17.5	19.0	19.0	---
29	11.5	5.0	5.0	5.5	6.5	5.0	4.0	---	18.0	18.5	19.5	---
30	12.0	5.0	6.0	6.0	---	4.0	4.5	14.5	17.0	18.5	19.5	---
31	12.5	---	5.5	7.0	---	4.0	---	12.0	---	18.0	19.5	---
TOTAL	408.5	241.0	170.0	160.0	182.0	163.0	111.5	144.5	527.5	604.0	565.5	346.5
MEAN	13.0	8.0	5.5	5.5	6.5	5.5	4.5	6.5	17.5	19.5	18.0	18.0
MAX	16.0	13.0	7.5	7.0	7.5	7.5	5.0	14.5	30.0	22.0	20.5	20.0
MIN	11.5	4.5	3.0	2.5	4.0	3.0	2.5	3.5	9.0	17.5	16.0	15.5

WTR YR 1984 TOTAL 3624.0 MEAN 10.5 MAX 30.0 MIN 2.5

BEST COPY AVAILABLE

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	14.0	15.0	10.5	7.0	5.0	9.0	3.5	8.5	5.0	10.5	6.5
2	19.5	13.5	14.5	11.0	8.0	5.5	9.0	1.5	7.5	5.5	10.5	6.0
3	18.0	13.0	15.0	10.0	7.5	5.0	8.0	5.5	7.5	5.0	8.0	5.5
4	17.5	12.0	15.0	9.5	7.0	4.0	---	---	8.5	5.5	6.5	4.0
5	19.0	13.0	15.0	9.5	6.0	3.5	---	---	8.5	5.0	7.0	3.5
6	18.0	13.0	14.0	9.0	6.0	3.5	8.0	5.0	9.0	5.5	7.5	4.0
7	18.0	12.5	15.0	9.0	7.0	4.5	8.0	5.0	8.0	5.0	7.5	4.5
8	16.5	13.0	10.5	5.0	8.0	4.5	8.0	5.0	9.0	6.0	9.5	5.0
9	17.0	12.0	10.5	6.0	8.5	6.5	7.0	4.5	8.5	4.5	9.0	4.5
10	17.0	11.5	10.0	6.0	7.0	2.5	8.0	3.5	10.0	6.0	10.0	5.5
11	14.5	12.0	11.0	7.0	9.5	5.0	6.5	3.5	8.5	5.0	8.0	5.0
12	16.0	11.5	10.5	7.0	8.5	4.5	7.0	4.0	6.0	3.5	10.5	5.0
13	16.5	10.5	10.5	7.0	8.0	4.0	6.0	3.5	9.0	4.5	11.0	4.5
14	15.5	11.0	9.5	5.5	7.5	4.5	5.5	2.5	9.5	4.5	10.0	4.0
15	15.5	10.5	10.0	6.0	7.5	5.0	5.0	.5	9.0	4.5	8.5	3.5
16	14.0	9.5	11.0	7.5	7.5	4.5	7.0	3.5	8.0	5.5	6.0	3.0
17	15.5	9.5	12.0	8.0	6.5	4.0	4.5	2.5	8.0	4.5	7.0	3.5
18	15.5	11.5	9.5	4.5	7.5	4.0	5.5	2.0	7.5	4.5	5.5	3.0
19	15.5	10.5	9.5	5.5	7.5	4.0	7.0	3.5	7.0	4.0	10.0	4.0
20	14.5	10.0	8.0	5.5	5.0	2.5	7.0	3.5	8.5	4.5	11.5	3.5
21	16.0	10.0	7.0	3.0	4.5	2.5	7.0	4.0	10.0	5.5	9.5	4.0
22	16.5	10.5	7.5	4.5	5.5	2.5	8.0	4.5	10.0	5.5	5.0	3.5
23	16.5	10.5	7.0	3.5	4.5	2.5	7.5	4.0	8.5	4.5	4.5	3.0
24	13.0	9.5	7.0	4.5	4.5	2.5	6.5	3.5	7.0	5.0	8.0	3.5
25	15.5	9.0	8.5	5.5	6.5	4.0	7.5	4.5	7.5	2.5	4.5	1.5
26	16.0	8.5	6.5	3.0	7.5	5.0	7.5	5.0	7.0	3.0	6.5	2.5
27	16.5	10.0	6.5	3.0	7.0	4.5	6.5	4.0	8.0	4.0	5.0	2.5
28	16.0	11.0	6.0	3.5	6.0	2.5	8.5	4.5	8.0	4.5	6.5	2.5
29	14.5	9.5	6.0	3.5	6.5	3.5	8.0	1.5	8.0	5.5	6.5	3.0
30	14.0	10.5	6.5	3.0	8.0	5.0	7.5	4.0	---	---	5.5	3.5
31	15.0	10.0	---	---	7.5	4.5	9.0	6.0	---	---	5.5	3.0
MONTH	19.5	8.5	15.0	3.0	9.5	2.5	9.0	.5	10.0	2.5	11.5	1.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	2.0	8.0	3.5	13.0	11.0	22.0	14.0	22.0	15.5	22.0	17.5
2	3.5	1.0	8.0	4.5	16.0	9.5	23.0	14.5	19.0	14.0	21.5	14.5
3	5.0	2.5	10.0	3.5	14.5	9.5	23.5	14.5	20.5	14.0	22.5	14.0
4	8.5	3.0	9.0	3.5	14.0	9.0	24.5	16.5	21.0	14.5	23.5	14.5
5	9.5	3.0	7.5	3.0	13.0	10.0	25.0	15.5	21.0	14.0	24.0	15.5
6	9.5	3.0	9.0	3.0	10.5	8.0	24.0	16.0	18.5	15.5	24.0	16.5
7	9.5	3.0	6.0	1.5	---	---	23.5	16.5	21.0	15.0	21.0	16.0
8	10.0	3.0	9.0	1.0	---	---	22.5	17.0	22.0	14.0	21.5	14.0
9	7.0	2.5	10.0	3.0	---	---	22.5	16.5	20.5	15.0	24.0	16.0
10	9.5	2.5	9.0	2.5	---	---	21.5	16.0	22.5	14.5	23.0	16.0
11	7.0	1.5	9.0	2.5	---	---	23.0	15.5	23.0	15.0	20.5	16.5
12	7.0	1.0	8.5	3.0	---	---	24.0	15.0	22.5	15.5	22.5	16.0
13	7.5	2.0	8.5	3.5	17.0	13.5	22.5	17.0	22.5	15.5	22.0	17.0
14	8.5	1.5	7.0	4.5	18.0	12.0	24.5	17.5	21.5	16.5	19.0	15.0
15	9.0	1.5	9.0	4.5	18.0	12.0	21.0	17.5	22.5	16.5	17.0	13.0
16	9.5	1.5	8.5	5.0	19.0	12.5	23.0	16.5	24.0	17.5	19.0	13.0
17	10.0	2.0	10.0	4.0	17.0	11.5	23.0	17.0	24.0	18.0	22.5	14.0
18	7.5	3.5	8.0	5.0	18.5	12.5	25.0	17.0	22.0	17.5	23.0	14.5
19	6.0	3.0	9.5	4.5	19.5	12.5	24.0	17.5	22.5	17.0	23.0	15.5
20	4.0	3.0	12.5	5.5	18.0	12.0	24.5	18.5	22.0	17.0	---	16.0
21	---	---	---	---	20.5	11.5	25.5	18.5	19.0	16.0	---	---
22	---	---	---	---	19.5	12.0	26.5	18.5	19.5	16.0	---	---
23	---	---	---	---	15.5	13.5	26.0	19.5	20.0	15.5	---	---
24	---	---	---	---	18.5	12.0	25.5	18.0	18.0	16.0	---	---
25	---	---	---	---	17.5	13.0	23.0	17.5	20.5	14.5	---	---
26	5.5	2.0	---	---	19.0	13.0	19.0	16.5	22.5	15.0	---	---
27	5.5	1.0	---	---	19.5	13.0	22.0	15.0	23.5	15.5	---	---
28	4.5	1.0	---	---	22.5	13.5	23.5	16.0	22.5	15.5	---	---
29	7.0	2.0	---	---	23.0	14.0	21.5	16.0	23.5	16.0	---	---
30	8.0	2.0	16.5	12.5	19.0	15.5	22.5	16.0	24.0	16.0	---	---
31	---	---	14.0	10.0	---	---	20.0	17.0	22.5	17.0	---	---
MONTH	10.0	1.0	16.5	1.0	23.0	8.0	26.5	14.0	24.0	14.0	24.0	13.0
YEAR	26.5	.5										

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	8.0	9.6	9.4	9.2	9.5	9.8	9.5	7.4	6.9	7.6	7.5
2	7.6	8.0	9.4	3.2	9.7	9.5	9.9	9.4	7.3	7.1	7.5	7.5
3	7.7	8.0	9.3	1.3	9.2	9.6	9.8	9.6	7.2	6.9	7.5	7.6
4	7.8	8.1	9.3	---	9.1	9.9	9.6	9.7	7.1	6.5	7.5	7.6
5	7.7	8.2	9.4	---	9.1	9.9	9.7	9.9	7.0	6.4	7.5	7.6
6	7.8	8.3	9.3	8.9	9.1	9.8	9.7	9.9	7.4	6.2	7.5	7.6
7	7.8	8.3	9.2	9.0	8.9	9.7	9.7	10.4	12.5	6.0	7.4	7.6
8	7.9	8.9	9.5	9.0	8.4	9.5	9.8	10.2	12.5	6.2	7.4	7.6
9	7.9	9.0	9.6	9.3	8.4	9.7	10.0	9.9	12.5	6.1	7.4	7.6
10	8.0	9.0	10.0	9.2	8.3	9.7	9.8	9.9	12.6	6.5	7.3	7.6
11	8.1	8.9	9.4	9.4	8.4	9.8	10.0	10.0	12.3	7.9	7.3	7.6
12	8.2	9.0	9.5	9.4	8.7	9.7	10.1	10.0	12.3	8.3	7.3	7.6
13	8.1	9.0	9.5	9.5	8.6	9.8	9.9	1.6	7.8	9.3	7.3	7.6
14	8.2	9.3	9.4	9.8	8.5	9.9	9.9	2.0	8.1	9.6	7.2	7.7
15	8.3	9.1	9.4	10.1	8.7	10.3	9.8	2.3	6.4	10.1	8.7	7.7
16	8.5	8.9	9.4	9.6	8.7	10.4	9.7	2.4	6.2	10.2	8.0	7.6
17	8.2	8.7	9.9	9.8	8.7	10.2	8.9	2.5	6.5	10.3	7.9	7.6
18	8.1	9.1	9.5	10.0	8.9	10.3	8.3	2.6	7.1	9.2	8.2	7.6
19	8.1	9.1	9.4	9.8	9.0	10.0	7.6	2.6	7.7	7.0	7.8	7.5
20	8.3	9.1	9.7	9.9	8.8	10.0	7.2	2.4	8.7	6.6	7.6	---
21	8.2	9.3	9.8	9.8	9.1	10.0	---	---	9.8	6.8	7.5	---
22	8.2	9.3	9.7	9.8	9.3	10.5	---	---	10.0	7.0	7.5	---
23	8.1	9.5	10.0	9.9	9.5	10.5	---	---	10.0	7.1	7.4	---
24	8.4	9.5	10.0	9.9	9.5	10.0	---	---	7.7	7.3	7.3	---
25	8.4	9.3	9.6	9.7	9.4	10.5	---	---	7.5	7.5	7.3	---
26	8.3	9.8	9.4	9.5	9.6	10.2	9.8	---	7.6	7.6	7.3	---
27	8.1	9.7	9.4	9.7	9.6	10.4	10.1	---	7.8	7.5	7.3	---
28	8.2	9.7	9.8	9.5	9.6	10.1	10.2	---	7.7	7.5	7.3	---
29	8.3	9.7	9.7	9.6	9.6	10.0	9.9	---	7.5	7.5	7.4	---
30	8.2	9.8	9.6	9.5	---	10.0	9.9	7.7	7.2	7.9	7.5	---
31	8.1	---	9.6	9.2	---	9.9	---	7.5	---	7.8	7.5	---
TOTAL	250.3	269.6	296.4	262.7	261.6	309.3	239.1	152.0	259.4	234.8	233.2	144.3
MEAN	8.1	9.0	9.6	9.1	9.0	10.0	9.6	6.9	8.7	7.6	7.5	7.6
MAX	8.5	9.8	10.0	10.1	9.7	10.5	10.2	10.4	12.6	10.3	8.7	7.7
MIN	7.5	8.0	9.2	1.3	8.3	9.5	7.2	1.6	6.2	6.0	7.2	7.5

WTR YR 1984 TOTAL 2912.7 MEAN 8.6 MAX 12.6 MIN 1.3

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.2	8.4	7.7	9.9	9.4	10.2	9.0	9.5	8.9	9.8	9.2
2	8.0	7.2	8.3	7.7	9.7	9.2	---	---	10.6	9.0	9.8	9.1
3	8.0	7.4	8.5	7.7	9.6	9.1	---	---	9.7	8.8	9.9	9.3
4	8.3	7.5	8.6	7.8	9.7	9.2	---	---	9.4	8.9	10.4	9.4
5	8.2	7.1	8.5	7.8	9.9	9.3	---	---	9.6	8.8	10.2	9.7
6	8.1	7.5	8.7	7.9	9.6	8.9	9.3	8.8	9.4	8.7	10.1	9.5
7	8.2	7.5	8.7	7.9	9.7	9.0	9.3	8.7	9.6	8.3	10.0	9.3
8	8.2	7.7	9.4	8.3	9.8	9.3	9.5	8.9	8.7	8.2	9.8	9.3
9	8.2	7.6	9.3	8.5	9.8	9.3	9.8	9.1	8.7	8.2	10.3	9.4
10	8.3	7.6	9.3	8.6	10.4	9.5	9.7	8.8	8.5	8.1	10.1	9.4
11	8.5	7.9	9.1	8.5	9.8	9.1	9.7	9.1	8.7	8.2	10.0	9.5
12	8.5	7.9	9.2	8.7	9.9	9.3	10.0	9.1	9.0	8.6	10.0	9.1
13	8.5	7.6	9.3	8.7	10.0	9.4	10.2	9.2	8.8	8.2	10.2	9.2
14	8.4	7.8	9.6	8.9	9.9	9.3	10.3	9.5	8.7	8.3	10.5	9.2
15	8.6	8.0	10.1	8.9	9.7	9.2	10.6	9.7	9.0	8.5	10.7	9.6
16	8.8	8.1	9.1	8.5	9.8	9.2	9.9	9.3	9.0	8.4	10.8	10.1
17	8.8	7.6	9.0	8.4	10.6	9.3	10.5	9.5	9.1	8.4	10.6	9.9
18	8.4	7.8	9.8	8.6	10.0	9.2	10.3	9.8	9.2	8.7	10.7	10.1
19	8.5	7.7	9.6	8.9	9.7	9.3	10.2	9.6	9.5	8.7	10.5	9.4
20	8.7	7.9	9.5	9.0	10.1	9.4	10.3	9.7	9.1	8.4	10.5	9.3
21	8.6	7.7	10.0	9.0	10.3	9.5	10.0	9.6	9.6	8.9	10.4	9.4
22	8.6	7.7	9.8	9.0	10.0	9.5	10.3	9.6	9.6	8.9	11.1	10.0
23	8.5	7.6	10.0	9.3	10.8	9.6	10.2	9.7	10.0	9.1	10.7	10.2
24	8.8	8.1	9.8	9.2	10.5	9.7	10.1	9.7	10.0	9.0	10.3	9.7
25	8.8	7.8	9.5	9.1	9.9	9.3	10.0	9.4	9.9	9.0	11.0	10.2
26	8.8	7.7	10.0	9.3	9.9	9.2	10.0	9.3	10.3	9.1	10.5	9.8
27	8.5	7.6	10.1	9.4	10.1	9.0	10.2	9.4	10.2	9.4	10.6	10.1
28	8.5	7.8	10.1	9.5	10.4	9.5	9.9	9.1	9.9	9.3	10.7	9.4
29	8.7	7.8	10.1	9.5	10.0	9.4	10.6	9.2	9.9	9.3	10.3	9.7
30	8.5	7.8	10.3	9.5	10.8	9.3	9.9	9.3	---	---	10.2	9.7
31	8.5	7.6	---	---	9.9	9.4	9.5	8.9	---	---	10.2	9.6
MONTH	8.8	7.1	10.3	7.7	10.8	8.9	10.6	8.7	10.6	8.1	11.1	9.1

06719735 RALSTON CREEK BELOW SCHWARTZWALDER MINE NR. PLAINVIEW, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.1	9.6	10.3	8.9	7.6	7.3	7.2	6.8	7.8	7.5	7.6	7.5
2	10.3	9.7	9.7	8.9	7.7	6.8	8.1	6.6	7.7	7.4	7.6	7.5
3	10.1	9.6	10.2	8.1	7.6	6.9	7.4	6.7	7.6	7.4	7.6	7.5
4	10.2	9.1	10.3	9.1	7.5	6.8	6.7	6.3	7.6	7.4	7.6	7.5
5	10.2	9.1	10.4	9.3	7.2	6.8	6.7	6.2	7.6	7.3	7.6	7.5
6	10.3	9.0	10.4	9.2	7.5	7.2	6.3	6.1	8.1	7.4	7.6	7.5
7	10.2	9.0	10.9	9.8	---	---	6.2	5.8	7.5	7.3	7.6	7.5
8	10.4	9.0	10.9	9.2	---	---	6.4	5.9	7.5	7.3	7.7	7.5
9	10.4	9.4	10.5	9.0	---	---	6.2	6.0	7.5	7.2	7.6	7.5
10	10.5	8.9	10.5	9.3	---	---	8.1	5.8	7.4	7.2	7.7	7.6
11	10.8	9.4	10.6	9.3	---	---	8.1	7.6	7.4	7.2	7.7	7.6
12	10.8	9.3	10.4	8.7	---	---	8.9	8.1	7.4	7.2	7.7	7.6
13	10.5	9.2	---	---	8.0	7.5	9.6	8.9	7.3	7.2	7.7	7.6
14	10.7	9.1	---	---	8.7	7.0	10.3	9.0	7.3	7.1	7.7	7.6
15	10.6	9.0	---	---	7.4	5.9	10.4	9.8	---	7.2	7.8	7.6
16	10.5	8.9	---	---	6.5	6.0	10.9	9.7	8.1	7.9	7.7	7.5
17	9.6	8.0	---	---	6.8	6.3	11.0	9.8	8.0	7.7	7.7	7.5
18	8.6	7.8	---	---	7.3	6.8	10.4	7.5	9.5	7.7	7.7	7.5
19	7.9	7.2	---	---	8.1	7.4	7.8	6.5	8.0	7.7	7.6	7.5
20	7.9	6.8	---	---	9.8	8.0	6.8	6.5	7.7	7.5	7.6	---
21	---	---	---	---	10.4	9.3	6.9	6.7	7.6	7.5	---	---
22	---	---	---	---	10.6	9.5	7.1	6.8	7.5	7.4	---	---
23	---	---	---	---	10.5	8.5	7.3	7.1	7.5	7.2	---	---
24	---	---	---	---	8.7	7.4	7.6	7.3	7.3	7.2	---	---
25	---	---	---	---	7.8	7.4	7.7	7.4	7.4	7.2	---	---
26	10.4	9.4	---	---	8.1	7.5	7.7	7.5	7.3	7.2	---	---
27	10.5	9.4	---	---	8.0	7.6	7.6	7.4	7.4	7.2	---	---
28	10.7	9.7	---	---	7.9	7.5	7.6	7.4	7.4	7.2	---	---
29	10.4	9.2	---	---	7.8	7.3	7.6	7.4	7.4	7.3	---	---
30	10.5	9.2	7.8	7.6	7.5	7.0	10.8	7.4	7.5	7.4	---	---
31	---	---	7.9	7.2	---	---	8.1	7.6	7.6	7.5	---	---
MONTH	10.8	6.8	10.9	7.2	10.6	5.9	11.0	5.8	9.5	7.1	7.8	7.5
YEAR	11.1	5.8										

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO.

LOCATION.--Lat 39°49'47", long 105°15'40", SE¼NE¼ sec.6, T.3 S., R.70 W., Jefferson County, Hydrologic Unit 10190004, on right bank, 150 ft downstream from road culvert, 0.6 mi downstream from diversion dam, and 4.6 mi northwest of Golden.

DRAINAGE AREA.--42.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1983 to September 1984 (discontinued). Gage operated by Denver Board of Water Commissioners prior to Feb. 15, 1983.

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 6,060 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by inflow from Schwartzwalder Mine and diversion above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282 ft³/s May 25, 1983, gage height, 3.12 ft; no flow Aug. 11-13, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft³/s at 1100 May 14, gage height, 2.10 ft; minimum daily, 0.15 ft³/s, Oct. 31 to Nov. 4, July 8, 9, 14-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	.15	3.1	2.9	3.3	4.0	6.7	45	12	.47	3.5	3.3
2	2.7	.15	3.1	2.9	2.9	4.3	6.4	55	10	.31	3.3	3.3
3	2.7	.15	3.1	3.1	3.6	4.3	6.4	61	7.4	.31	.80	3.3
4	2.7	.15	3.1	3.1	3.8	4.3	6.1	69	5.9	.31	.98	3.3
5	2.5	.31	3.2	3.3	3.8	4.2	7.0	73	4.5	.31	.64	2.9
6	2.7	.31	3.2	3.1	3.8	4.0	8.3	72	4.3	.31	.47	2.7
7	2.7	.31	3.1	3.1	3.8	4.2	11	61	4.3	.31	.47	2.5
8	2.9	.47	3.3	3.1	4.0	4.3	14	52	3.6	.15	.47	2.5
9	2.9	.31	3.3	3.1	4.0	4.5	18	54	2.9	.15	.31	2.5
10	2.7	.31	3.1	2.7	4.0	4.5	18	69	2.7	.47	.31	2.3
11	2.5	.31	3.3	3.3	3.8	4.5	22	92	2.1	.31	.31	2.1
12	2.9	.31	3.3	3.1	3.9	4.5	18	112	2.1	.31	.31	2.1
13	2.7	.31	3.1	3.1	4.0	4.8	18	124	1.9	.31	.31	2.1
14	2.9	.31	3.1	3.1	4.0	5.3	17	135	1.7	.15	.31	2.3
15	2.7	.31	3.1	3.1	4.0	6.4	17	137	1.5	.15	.31	2.3
16	2.7	2.1	3.0	3.1	4.0	6.4	18	132	1.5	.15	.31	2.5
17	2.5	2.7	3.0	3.1	4.0	5.6	24	120	.99	.15	.31	2.5
18	2.7	2.9	3.2	3.1	4.0	5.6	28	106	.80	.15	.31	2.3
19	1.9	2.5	3.4	3.1	4.0	5.1	27	94	.80	.15	.31	1.9
20	.64	2.9	3.2	3.1	4.0	5.3	28	82	.98	.15	.64	1.9
21	.64	2.9	3.2	3.1	4.0	6.1	22	67	.98	.15	.98	1.9
22	.47	2.5	3.2	3.1	4.0	6.4	29	54	.80	.15	.64	2.1
23	.47	2.6	3.2	3.1	3.8	6.1	32	47	.80	.15	4.0	2.1
24	.47	2.9	3.2	3.1	3.8	6.4	42	40	.64	2.3	5.9	2.3
25	.47	2.9	3.2	3.1	3.8	7.4	50	40	.64	.47	5.1	2.5
26	.31	2.5	3.2	3.1	3.6	7.7	59	33	.47	.47	5.1	2.5
27	.31	2.8	3.3	2.9	4.0	7.7	52	26	.47	.64	4.5	2.7
28	.31	3.0	3.2	3.1	4.0	7.4	46	20	.47	.31	4.0	3.1
29	.31	3.1	3.2	3.3	4.0	7.4	42	18	.47	.31	3.8	3.3
30	.31	3.1	3.1	3.1	---	7.4	40	14	.47	.47	3.3	3.6
31	.15	---	3.1	3.3	---	7.0	---	12	---	.64	3.1	---
TOTAL	55.56	45.57	98.4	95.9	111.7	173.1	732.9	2116	78.18	11.14	55.10	76.7
MEAN	1.79	1.52	3.17	3.09	3.85	5.58	24.4	68.3	2.61	.36	1.78	2.56
MAX	2.9	3.1	3.4	3.3	4.0	7.7	59	137	12	2.3	5.9	3.6
MIN	.15	.15	3.0	2.7	2.9	4.0	6.1	12	.47	.15	.31	1.9
AC-FT	110	90	195	190	222	343	1450	4200	155	22	109	152

WTR YR 1984 TOTAL 3650.25 MEAN 9.97 MAX 137 MIN .15 AC-FT 7240

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1984.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March to September 1984.
pH: March to September 1984.
WATER TEMPERATURES: March to September 1984.
DISSOLVED OXYGEN: March to September 1984.

INSTRUMENTATION.--Water quality monitor since March 1983. (Discontinued Sept. 30, 1984).

EXTREMES FOR CURRENT YEAR:--
SPECIFIC CONDUCTANCE: Maximum, 1,060 micromhos Sept. 23, 24, 1984; minimum, 100 micromhos May 12, 1984.
pH: Maximum 9.7 units Aug. 30, 1984; minimum, 6.9 units Apr. 17, 1984.
WATER TEMPERATURES: Maximum, 25.5°C Aug. 11, 17, 1984, minimum 0.0°C Dec. 17-22, 1983 and Feb. 11, 16, 1984.
DISSOLVED OXYGEN: Maximum, 13.9 mg/L Oct. 29 1983, minimum, 5.3 mg/L Aug. 17, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
DEC											
05...	0830	3.1	619	8.4	1.0	11.0	36	12	--	--	131
05...	1600	3.1	594	8.3	1.5	10.8	37	13	--	--	129
05...	2300	3.0	590	8.2	.0	11.0	35	12	--	--	126
06...	1300	3.0	[illegible]68	8.3	.5	11.2	39	13	84	3.5	133
07...	1300	3.1	644	8.5	4.0	10.4	35	12	--	--	129
07...	2100	3.1	698	8.2	2.5	10.3	36	13	87	3.3	135
08...	1100	3.1	653	8.6	6.0	10.0	36	13	--	--	128
08...	2300	3.3	634	8.0	3.0	10.7	35	12	--	--	127
09...	0700	3.1	644	8.2	3.0	10.6	38	13	76	2.8	127
MAY											
14...	1445	130	103	7.6	9.5	9.0	11	4.0	6.6	2.2	28
14...	2330	141	103	8.0	8.0	9.0	9.7	3.7	--	--	51
15...	1720	136	94	7.6	11.5	8.6	9.2	3.2	--	--	27
16...	0515	136	99	7.6	7.0	9.6	10	3.4	--	--	28
17...	0745	119	102	7.6	6.0	10.0	9.3	3.2	6.7	1.6	29
17...	1945	116	108	8.4	10.0	8.5	10	3.4	--	--	30
18...	0300	113	108	8.0	7.0	9.6	10	3.4	7.1	1.6	31
18...	1035	106	108	7.6	8.5	9.5	9.6	3.1	--	--	31
18...	2300	103	113	7.8	8.0	9.2	10	3.4	--	--	118
AUG											
27...	0930	5.1	514	8.3	15.5	8.2	31	10	--	--	117
27...	1630	4.5	437	8.6	22.5	7.0	28	9.1	--	--	108
27...	2300	4.5	560	8.3	17.0	7.1	33	11	--	--	122
28...	1120	4.3	530	8.4	18.5	7.5	34	12	55	3.5	121
28...	1900	3.8	580	8.3	20.0	7.0	37	13	64	3.1	125
29...	1300	3.8	622	8.7	21.0	7.4	38	13	--	--	130
29...	2100	3.8	625	8.4	18.0	6.8	35	12	63	3.0	125
31...	0300	3.3	700	8.3	16.5	7.1	41	14	--	--	137
31...	0720	3.1	702	8.4	15.0	7.7	42	15	--	--	137

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
DEC												
05...	--	--	418	--	--	--	--	--	--	--	--	--
05...	--	--	412	--	--	--	--	--	--	--	--	--
05...	--	--	389	--	--	--	--	--	--	--	--	--
06...	200	17	455	--	<.010	1.40	.090	1.0	1.1	2.5	.030	.030
07...	--	--	443	--	--	--	--	--	--	--	--	--
07...	230	17	479	--	<.010	2.40	.050	.85	.90	3.3	<.010	.020
08...	--	--	439	--	--	--	--	--	--	--	--	--
08...	--	--	444	--	--	--	--	--	--	--	--	--
09...	170	16	431	--	<.010	2.10	.030	.97	1.0	3.1	<.010	<.010
MAY												
14...	21	3.0	94	.190	.010	.200	.040	2.5	2.5	2.7	.150	.030
14...	--	--	123	--	--	--	--	--	--	--	--	--
15...	--	--	85	--	--	--	--	--	--	--	--	--
16...	--	--	94	--	--	--	--	--	--	--	--	--
17...	19	3.1	90	--	<.010	.200	.050	2.3	2.3	2.5	.040	.020
17...	--	--	94	--	--	--	--	--	--	--	--	--
18...	20	2.9	95	.190	.010	.200	.050	.45	.50	.70	.070	.030
18...	--	--	95	--	--	--	--	--	--	--	--	--
18...	--	--	98	--	--	--	--	--	--	--	--	--
AUG												
27...	--	--	337	--	--	--	--	--	--	--	--	--
27...	--	--	293	--	--	--	--	--	--	--	--	--
27...	--	--	361	--	--	--	--	--	--	--	--	--
28...	120	12	344	.980	.020	1.00	.030	.67	.70	1.7	.040	.050
28...	160	12	391	1.49	.010	1.50	.030	.37	.40	1.9	.010	.020
29...	--	--	406	--	--	--	--	--	--	--	--	--
29...	140	12	390	1.78	.020	1.[illegible]	.020	.48	.50	2.3	.020	<.010
31...	--	--	439	--	--	--	--	--	--	--	--	--
31...	--	--	455	--	--	--	--	--	--	--	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC										
05...	--	--	--	<1	--	9	2	210	15	1
05...	--	--	--	<1	--	4	3	160	14	1
05...	--	--	--	--	--	4	2	150	15	1
06...	4	100	180	--	<10	8	3	2100	16	5
07...	--	--	--	--	--	5	2	330	16	3
07...	3	100	180	--	--	25	1	230	15	6
08...	--	--	--	--	--	4	2	260	16	3
08...	--	--	--	--	--	18	2	540	17	9
09...	4	100	170	--	--	6	1	270	17	3
MAY										
14...	5	200	10	--	--	13	2	6200	480	9
14...	--	--	--	--	--	11	2	5100	240	8
15...	--	--	--	--	--	10	4	4300	490	3
16...	--	--	--	--	--	10	3	4200	390	3
17...	<1	<100	10	--	--	6	3	3100	340	5
17...	--	--	--	--	--	8	3	2700	360	17
18...	<1	200	10	--	--	7	2	2600	390	5
18...	--	--	--	--	--	8	3	2500	340	2
18...	--	--	--	--	--	8	2	2300	360	13
AUG										
27...	--	--	--	--	--	3	3	380	50	6
27...	--	--	--	--	--	5	4	360	60	5
27...	--	--	--	--	--	5	2	380	50	4
28...	4	<100	120	--	--	15	4	3700	40	13
28...	2	<100	130	--	--	5	3	510	50	5
29...	--	--	--	--	--	3	2	230	40	<1
29...	2	<100	120	--	--	6	2	300	40	3
31...	--	--	--	--	--	4	2	240	30	3
31...	--	--	--	--	--	7	3	200	40	3

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
DEC									
05...	1	10	2	--	--	--	--	--	--
05...	<1	10	2	--	--	--	--	--	--
05...	1	10	2	--	--	--	--	--	--
06...	1	70	3	.1	150	7	--	--	40
07...	<1	10	2	--	--	--	--	--	--
07...	1	<10	2	<.1	160	6	--	--	50
08...	2	10	2	--	--	--	--	--	--
08...	2	20	3	--	--	--	--	--	--
09...	1	10	2	<.1	170	4	<1	<1	30
MAY									
14...	<1	220	10	<.1	10	--	--	--	80
14...	<1	290	20	--	--	--	--	--	--
15...	<1	160	<10	--	--	--	--	--	--
16...	<1	150	<10	--	--	--	--	--	--
17...	<1	90	10	<.1	9	11	--	--	80
17...	<1	90	<10	--	--	--	--	--	--
18...	<1	90	<10	<.1	9	16	--	--	40
18...	<1	80	<10	--	--	--	--	--	--
18...	<1	80	<10	--	--	--	--	--	--
AUG									
27...	4	10	<10	--	--	--	--	--	--
27...	2	10	<10	--	--	--	--	--	--
27...	<1	20	<10	--	--	--	--	--	--
28...	<1	160	10	<.1	100	8	--	--	40
28...	<1	30	<10	<.1	140	2	--	--	30
29...	<1	20	<10	--	--	--	--	--	--
29...	1	20	<10	<.1	180	6	--	--	30
31...	1	20	<10	--	--	--	--	--	--
31...	6	10	<10	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	URANIUM NATURAL TOTAL (UG/L AS U)
DEC					
05...	1.6	5.3	5.6	75	77
05...	.9	4.1	3.9	79	80
05...	--	--	--	81	84
06...	--	--	--	82	84
07...	1.9	4.1	3.9	79	80
07...	--	--	--	78	71
08...	--	--	--	76	78
08...	16	16	14	83	99
09...	8.7	9.0	8.4	80	89
MAY					
14...	--	--	--	4.7	12
14...	--	--	--	4.3	9.7
15...	--	--	--	2.7	7.8
16...	--	--	--	3.1	8.8
17...	--	--	--	2.5	7.3
MAY					
17...	--	--	--	3.3	6.9
18...	--	--	--	2.7	7.1
18...	--	--	--	3.7	6.5
18...	--	--	--	4.4	5.7
AUG					
27...	--	--	--	26	30
27...	--	--	--	27	30
27...	--	--	--	29	40
28...	--	--	--	33	32
28...	--	--	--	33	37
29...	--	--	--	39	42
29...	--	--	--	33	37
31...	--	--	--	42	38
31...	--	--	--	45	38

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06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC				
05...	0830	3.1	2	.02
05...	1600	3.1	14	.12
05...	2300	3.0	2	.02
06...	1300	3.0	68	.55
07...	1300	3.1	1	.00
07...	2100	3.1	1	.00
08...	1100	3.1	1	.00
08...	2300	3.3	4	.04
09...	0700	3.1	2	.02
MAY				
14...	1445	130	211	74
14...	2330	141	142	54
15...	1720	136	114	42
16...	0515	136	100	37
17...	0745	119	70	22
MAY				
17...	1945	116	53	17
18...	0300	113	53	16
18...	1035	106	56	16
18...	2300	103	39	11
AUG				
27...	0930	5.1	14	.19
27...	1630	4.5	14	.17
27...	2300	4.5	10	.12
28...	1120	4.3	124	1.4
28...	1900	3.8	14	.14
29...	1300	3.8	22	.23
29...	2100	3.8	10	.10
31...	0300	3.3	10	.09
31...	0720	3.1	8	.07

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	846	448	600	621	777	717	402	157	216	318	349	682
2	---	462	653	656	741	684	404	149	228	312	226	664
3	---	464	643	725	804	644	425	162	230	308	334	681
4	---	462	590	733	800	687	434	152	234	305	349	702
5	---	461	601	709	840	666	389	142	240	305	364	739
6	795	439	673	676	740	642	344	140	250	298	374	794
7	820	461	660	663	704	679	310	140	248	295	381	874
8	802	449	660	664	695	702	263	138	277	292	383	851
9	794	474	649	637	725	691	208	136	302	288	373	850
10	766	480	614	713	716	702	214	144	345	287	375	878
11	807	472	762	652	731	653	203	119	342	299	374	907
12	745	---	711	728	749	651	215	105	342	304	373	926
13	771	---	682	763	703	614	214	136	308	304	372	952
14	717	---	711	748	716	512	215	131	274	305	374	886
15	782	494	712	708	707	427	207	128	280	306	375	779
16	778	637	697	726	735	390	201	127	289	310	377	733
17	775	789	686	721	742	440	180	126	302	312	377	822
18	817	739	733	755	744	426	157	132	341	319	369	830
19	721	792	745	792	703	473	161	140	328	325	375	883
20	521	795	746	794	736	450	160	144	304	326	364	944
21	497	667	819	778	741	414	177	---	292	324	357	916
22	487	846	838	746	707	380	169	---	315	332	385	949
23	480	788	780	734	709	423	174	---	322	337	383	979
24	474	778	866	776	739	424	173	---	325	292	423	1010
25	471	725	723	813	695	348	182	---	327	324	418	971
26	471	731	682	806	722	362	174	---	327	337	417	955
27	464	754	635	812	691	335	175	---	325	333	471	940
28	463	646	609	792	710	---	180	---	318	348	525	887
29	461	569	640	---	686	---	174	---	316	371	617	847
30	455	598	639	847	---	373	161	194	311	357	664	760
31	452	---	629	817	---	371	---	205	---	302	700	---
TOTAL	17432	16420	21388	22105	21208	15280	7045	3147	8858	9775	12598	25591
MEAN	645	608	690	737	731	527	235	143	295	315	406	853
MAX	846	846	866	847	840	717	434	205	345	371	700	1010
MIN	452	439	590	621	686	335	157	105	216	287	226	664

WTR YR 1984 TOTAL 180847 MEAN 521 MAX 1010 MIN 105

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06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	919	810	469	409	694	434	690	540	834	624	820	620
2	---	---	480	440	705	565	761	501	833	556	750	610
3	---	---	489	429	696	436	811	651	909	679	709	549
4	---	---	478	428	694	488	792	642	924	619	799	549
5	---	---	478	438	674	494	762	582	945	645	749	509
6	890	720	467	417	738	538	753	543	807	597	728	428
7	919	749	476	436	724	544	699	549	770	500	738	488
8	868	738	485	415	703	563	725	525	758	598	758	628
9	847	717	505	435	694	574	680	520	816	566	738	558
10	827	707	494	424	691	451	916	526	774	594	799	509
11	836	736	483	423	868	568	732	542	772	632	709	529
12	865	485	---	---	795	575	848	548	850	570	719	489
13	794	694	---	---	782	552	884	544	758	588	689	479
14	833	643	---	---	758	588	790	660	787	587	600	280
15	822	732	510	480	735	615	825	435	764	585	500	310
16	832	712	791	481	752	562	869	346	853	573	439	299
17	821	691	812	692	729	619	757	627	871	571	598	298
18	890	710	843	423	836	566	833	703	829	599	467	357
19	821	421	873	723	833	643	839	709	807	457	627	347
20	563	483	894	624	804	683	834	694	825	625	546	336
21	514	454	755	585	874	724	830	670	793	623	485	305
22	515	445	946	706	895	765	806	636	783	583	444	294
23	507	427	847	637	905	625	780	640	952	562	463	333
24	498	448	828	648	976	686	863	713	902	502	572	322
25	489	449	789	619	836	676	865	725	842	512	372	292
26	491	441	820	680	717	567	848	708	841	491	441	271
27	482	422	810	730	697	497	851	681	771	531	360	280
28	483	433	751	511	678	478	833	703	761	601	---	---
29	485	425	612	492	688	558	966	---	750	600	---	---
30	476	426	683	453	699	539	939	699	---	---	390	330
31	477	417	---	---	720	510	891	671	---	---	430	260
MONTH	919	417	946	409	976	434	966	346	952	457	820	260

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	430	300	167	137	236	186	333	303	490	330	768	518
2	449	339	159	139	241	191	319	299	300	140	747	517
3	479	349	182	142	246	196	314	304	370	290	747	557
4	559	319	169	139	351	210	310	300	490	240	766	606
5	439	319	156	136	255	225	316	296	390	330	826	646
6	379	289	163	133	310	220	311	281	390	350	935	545
7	329	269	160	130	265	235	297	287	400	370	944	764
8	298	198	157	127	339	239	303	283	400	370	904	744
9	228	198	154	124	344	244	299	279	380	360	933	803
10	228	188	151	121	369	279	314	264	390	360	912	772
11	228	178	138	108	384	254	300	290	391	361	952	832
12	288	178	121	100	388	258	311	291	391	361	981	811
13	228	187	153	103	393	223	311	291	391	361	991	871
14	227	187	156	106	301	201	312	302	392	362	980	733
15	227	187	138	108	299	249	313	303	392	362	825	701
16	277	177	141	111	367	237	324	293	392	362	858	476
17	190	160	133	113	435	246	324	304	393	363	864	716
18	182	142	146	116	464	234	335	305	383	363	883	726
19	175	145	149	119	442	202	336	316	393	363	940	810
20	188	138	161	---	430	210	336	316	394	224	1010	877
21	200	160	---	---	310	270	337	317	374	324	999	692
22	183	153	---	---	330	310	358	318	395	365	1010	797
23	205	156	---	---	330	310	349	319	425	245	1060	892
24	188	158	---	---	340	320	339	129	488	281	1060	885
25	191	161	---	---	340	320	360	280	453	283	999	883
26	183	163	---	---	330	320	490	300	485	324	999	911
27	186	166	---	---	330	320	380	260	539	355	997	861
28	189	169	---	---	326	306	370	300	529	519	973	754
29	191	151	---	---	321	311	410	310	680	500	878	741
30	164	134	197	177	317	307	380	180	719	489	863	668
31	---	---	222	182	---	---	340	170	739	519	---	---
MONTH	559	134	222	100	464	186	490	129	739	140	1060	476
YEAR	1060	100										

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06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.2	8.3	9.4	8.1	8.3	7.8	8.4	8.1	8.5	7.9	8.5	7.8
2	---	---	8.7	7.6	8.5	8.0	8.5	8.1	8.1	7.8	8.6	7.9
3	---	---	8.8	7.7	8.5	8.1	8.5	8.2	8.2	7.8	8.5	7.9
4	---	---	8.9	7.7	8.7	8.3	8.5	8.2	8.3	7.9	8.4	7.9
5	---	---	8.1	7.7	8.7	7.9	8.6	8.2	8.4	7.8	8.3	7.8
6	8.9	7.8	9.0	7.7	8.3	7.9	8.4	8.1	8.3	7.7	8.6	7.9
7	9.0	7.8	9.2	7.7	8.5	8.1	8.4	8.0	7.9	7.4	8.5	8.1
8	8.8	7.8	8.8	7.6	8.7	8.2	8.5	8.1	8.0	7.4	8.6	8.0
9	8.9	7.9	8.8	7.5	8.7	8.2	8.4	8.0	8.0	7.4	8.5	8.1
10	8.9	8.0	8.9	7.7	8.6	8.0	8.5	7.8	8.1	7.5	8.6	8.0
11	8.8	8.0	7.9	7.7	8.7	8.0	8.4	7.8	8.1	7.5	8.5	8.1
12	8.9	7.9	---	---	8.7	8.2	8.5	7.8	8.0	7.4	8.7	8.0
13	8.9	7.9	---	---	8.7	8.2	8.4	7.9	8.1	7.5	8.6	8.0
14	8.9	7.9	---	---	8.6	8.1	8.3	7.8	8.2	7.6	8.6	8.0
15	8.9	8.0	9.1	8.2	8.5	8.2	8.3	7.8	8.2	7.6	8.4	7.7
16	8.9	8.0	9.2	8.2	8.5	8.1	8.3	7.9	8.2	7.7	8.1	7.7
17	9.0	7.8	9.3	8.6	8.4	7.9	8.2	7.9	8.1	7.6	8.3	7.7
18	8.6	7.6	8.8	8.5	8.4	7.7	8.3	7.9	8.1	7.5	8.1	7.8
19	8.9	7.4	9.0	8.4	8.2	7.9	8.3	7.9	8.2	7.5	8.5	7.9
20	8.6	7.4	9.1	8.4	8.1	7.9	8.4	8.0	8.2	7.5	8.6	7.9
21	8.8	7.4	8.7	8.3	8.1	7.8	8.4	8.2	8.2	7.6	8.5	8.0
22	8.9	7.3	8.7	8.3	8.1	7.8	8.5	8.3	8.4	7.6	8.1	7.7
23	9.0	7.4	8.7	8.3	8.0	7.8	8.5	8.3	8.2	7.6	8.3	7.7
24	8.6	7.5	8.7	8.2	8.0	7.9	8.5	8.2	8.3	7.6	8.6	7.9
25	8.5	7.4	8.9	8.4	8.0	7.9	8.5	8.2	8.2	7.5	8.2	7.9
26	9.0	7.6	8.4	7.9	8.2	8.0	8.5	8.2	8.2	7.6	8.4	8.0
27	9.0	7.7	8.2	8.1	8.3	8.1	8.4	8.1	8.2	7.7	8.3	7.9
28	9.3	7.7	8.4	8.0	8.2	8.0	8.5	8.1	8.2	7.7	---	---
29	9.2	7.9	8.6	8.1	8.2	8.0	8.4	8.0	8.4	7.8	---	---
30	9.0	7.8	8.4	7.9	8.3	8.1	8.4	8.0	---	---	8.1	7.9
31	9.3	8.0	---	---	8.4	8.2	8.4	7.9	---	---	8.2	7.9
MONTH	9.3	7.3	9.4	7.5	8.7	7.7	8.6	7.8	8.5	7.4	8.7	7.7

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.1	7.8	7.9	7.6	8.2	7.9	8.5	8.0	8.8	8.1	9.6	8.3
2	8.1	7.7	8.0	7.7	8.3	7.8	8.6	7.9	8.5	8.1	9.5	8.3
3	8.3	7.7	8.1	7.8	8.2	7.9	8.5	8.0	8.7	8.1	9.6	8.2
4	8.9	7.8	8.1	7.8	8.3	7.8	8.6	8.1	8.7	8.1	9.5	8.1
5	8.4	7.8	8.2	7.9	8.1	7.8	8.6	8.1	8.7	8.1	9.6	8.1
6	8.3	7.8	8.4	7.9	8.1	7.8	8.5	8.0	8.5	8.0	9.5	8.1
7	8.2	7.7	8.3	8.0	8.1	7.7	8.5	8.1	8.6	7.9	9.6	8.0
8	8.1	7.6	8.6	8.1	8.0	7.8	8.4	8.1	8.6	7.9	9.5	8.0
9	7.8	7.5	8.7	8.2	8.3	7.8	8.5	8.1	8.4	7.4	9.4	8.0
10	7.7	7.5	8.7	8.3	8.2	7.8	8.6	8.1	8.5	7.3	9.5	7.9
11	7.7	7.5	9.2	8.3	8.3	7.8	8.4	7.9	8.5	7.3	9.0	7.9
12	7.9	7.3	8.5	8.2	8.5	7.8	8.4	7.9	8.5	7.3	9.4	7.9
13	7.7	7.5	8.5	8.3	8.1	7.4	8.3	7.9	8.8	7.4	9.2	7.8
14	7.7	7.4	8.6	8.5	7.9	7.3	8.6	8.0	8.7	7.4	8.5	7.8
15	7.7	7.4	8.6	8.4	8.0	7.5	8.5	8.1	8.8	7.4	8.7	7.7
16	7.6	7.1	8.6	8.2	8.2	7.5	8.6	8.1	8.7	7.4	9.0	7.6
17	7.5	6.9	8.4	8.2	8.2	7.5	8.6	8.2	8.7	7.3	9.2	7.7
18	7.2	7.0	8.4	8.1	8.4	7.7	8.8	8.3	8.8	7.4	9.3	7.7
19	7.3	7.1	8.4	8.1	8.3	7.9	8.8	8.3	8.8	7.5	9.3	7.7
20	7.4	7.1	8.5	---	8.2	7.7	8.9	8.4	8.7	7.5	9.4	7.8
21	7.3	7.3	---	---	8.4	7.7	9.0	8.4	8.6	7.6	9.3	7.8
22	7.6	7.4	---	---	8.2	7.7	9.0	8.5	9.0	7.6	9.3	7.8
23	7.7	7.3	---	---	8.1	7.7	9.1	8.6	8.8	7.6	9.4	7.8
24	7.5	7.3	---	---	8.3	7.7	9.1	8.2	8.7	8.1	8.7	7.9
25	7.7	7.5	---	---	8.3	7.7	8.3	8.2	9.1	8.1	9.1	8.0
26	7.6	7.3	---	---	8.3	7.7	8.2	8.1	9.1	8.0	9.3	8.0
27	7.6	7.4	---	---	8.3	7.7	8.6	8.1	9.2	7.9	9.4	7.9
28	7.9	7.5	---	---	8.5	7.7	8.8	8.2	8.9	8.0	9.0	7.9
29	8.1	7.8	---	---	8.5	7.8	8.8	8.3	9.1	8.0	9.4	7.9
30	7.9	7.6	8.2	8.0	8.3	7.9	8.8	8.2	9.7	8.4	9.4	7.9
31	---	---	8.3	7.9	---	---	8.8	8.3	9.5	8.3	---	---
MONTH	8.9	6.9	9.2	7.6	8.5	7.3	9.1	7.9	9.7	7.3	9.6	7.6
YEAR	9.7	6.9										

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	11.0	4.0	2.5	4.0	4.5	3.0	7.0	12.0	16.5	17.5	17.5
2	---	9.5	4.0	2.0	2.5	5.0	1.5	7.0	12.5	17.0	16.5	16.0
3	---	8.5	3.5	3.5	2.5	3.5	3.0	7.0	12.0	16.5	17.5	16.0
4	---	8.0	3.5	4.0	3.5	1.0	5.0	7.0	12.0	17.5	17.5	16.0
5	---	8.5	1.5	4.5	3.5	1.0	5.5	6.0	12.0	17.5	17.5	17.0
6	13.5	8.5	.5	4.0	4.0	2.0	5.5	6.5	11.0	17.5	17.0	17.5
7	12.5	8.5	3.0	4.0	3.0	2.0	6.0	5.5	11.0	16.5	17.5	15.5
8	12.0	4.0	4.5	4.0	3.0	3.5	6.0	6.5	10.5	17.0	18.0	15.0
9	12.0	3.5	4.0	3.0	2.0	3.0	4.5	8.0	11.5	16.5	17.0	17.0
10	11.5	5.0	3.5	2.0	3.0	4.0	6.0	8.5	11.0	17.5	17.5	17.0
11	10.0	3.5	3.5	2.5	2.5	4.0	4.5	8.5	13.5	17.0	18.0	15.5
12	10.0	---	3.5	2.0	1.0	4.5	4.0	8.5	14.5	17.0	17.0	16.5
13	10.0	---	2.0	1.0	3.0	5.0	4.5	9.5	14.0	16.0	17.5	16.5
14	10.0	---	1.5	.5	3.5	5.5	5.0	9.5	14.0	17.0	17.5	14.0
15	9.5	5.5	1.0	.5	2.5	5.5	5.0	10.0	14.5	16.5	18.0	13.0
16	8.5	5.5	1.0	.5	2.0	3.5	6.0	10.0	14.5	17.5	18.5	13.5
17	9.5	6.5	.5	.5	1.5	4.5	7.0	10.5	14.0	17.0	19.0	15.0
18	10.5	4.5	.0	.5	1.0	3.5	6.5	10.5	15.0	17.0	18.0	15.5
19	9.5	3.5	.0	.5	1.0	5.0	6.0	11.5	15.0	17.0	18.0	16.0
20	9.0	4.5	.0	.5	1.5	6.0	3.0	12.5	15.0	17.5	17.5	15.0
21	9.5	3.0	.0	1.0	4.0	5.5	1.5	---	15.5	17.5	16.5	15.5
22	10.0	2.0	.0	2.0	4.5	2.5	4.0	---	15.0	18.5	17.5	14.5
23	10.5	1.5	.5	2.0	3.0	3.0	5.5	---	13.5	18.5	16.5	14.0
24	8.5	2.5	.5	2.0	3.5	5.0	5.5	---	15.0	16.5	16.5	11.5
25	9.0	5.0	.5	2.5	2.5	2.5	5.5	---	14.0	17.0	16.5	10.0
26	9.5	2.0	1.5	3.0	1.5	4.0	5.0	---	15.0	16.0	17.5	11.0
27	10.5	1.5	2.0	2.0	1.5	3.0	4.0	---	15.0	17.5	18.0	11.0
28	10.0	1.5	1.0	3.0	1.5	---	4.0	---	16.0	17.5	17.5	7.0
29	10.0	2.0	.5	3.0	3.0	---	5.5	---	16.0	17.5	17.5	8.5
30	10.5	1.5	2.5	2.5	---	3.5	6.0	14.5	15.0	17.5	18.0	9.5
31	10.5	---	3.5	3.5	---	3.5	---	12.5	---	16.5	17.5	---
TOTAL	280.0	131.0	57.5	69.0	75.5	109.0	144.0	197.0	409.5	530.0	542.0	427.5
MEAN	10.5	5.0	2.0	2.0	2.5	4.0	5.0	9.0	13.5	17.0	17.5	14.5
MAX	13.5	11.0	4.5	4.5	4.5	6.0	7.0	14.5	16.0	18.5	19.0	17.5
MIN	8.5	1.5	.0	.5	1.0	1.0	1.5	5.5	10.5	16.0	16.5	7.0

WTR YR 1984 TOTAL 2972.0 MEAN 8.5 MAX 19.0 MIN .0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	11.5	16.0	4.5	6.0	2.0	3.5	2.0	8.0	1.5	8.5	2.0
2	---	---	13.5	6.5	6.5	2.5	3.5	1.0	6.0	1.0	9.5	2.0
3	---	---	13.5	3.0	6.0	2.5	5.0	2.0	4.5	1.5	5.5	2.0
4	---	---	13.5	5.0	5.5	2.0	6.0	3.0	6.5	2.0	2.5	.5
5	---	---	13.0	6.0	3.0	.5	6.5	3.0	7.5	2.0	2.5	.5
6	16.5	10.0	13.5	5.5	1.0	.5	6.0	3.5	8.0	1.5	6.0	.5
7	17.0	10.5	13.5	5.5	4.5	2.0	6.0	2.0	5.5	1.5	6.0	.5
8	14.0	11.0	7.0	1.5	6.5	.5	6.0	2.0	5.5	1.0	8.5	.5
9	15.5	9.5	8.5	1.5	6.0	2.0	4.0	2.0	6.0	.5	6.5	1.5
10	15.5	9.5	10.0	2.0	6.0	2.0	4.0	.5	7.0	1.0	8.5	.5
11	11.5	9.5	4.0	3.0	6.0	1.5	4.0	1.5	5.5	.0	6.5	2.0
12	13.5	8.5	---	---	6.0	2.0	4.5	.5	4.0	1.0	9.5	2.0
13	14.5	7.0	---	---	4.0	1.0	2.0	.5	7.5	.5	10.5	.5
14	13.5	8.5	---	---	3.5	.5	.5	.5	6.5	1.5	10.5	2.0
15	13.5	7.0	6.5	4.0	2.5	.5	.5	.5	6.5	1.0	9.5	2.0
16	12.5	6.5	8.0	4.0	2.0	.5	.5	.5	5.5	.0	6.0	2.5
17	13.0	7.0	9.5	4.5	.5	.0	.5	.5	3.5	.5	8.5	1.5
18	13.0	9.5	6.5	2.0	.5	.0	.5	.5	3.0	.5	4.5	2.5
19	14.0	3.5	6.5	2.0	.0	.0	.5	.5	4.0	.5	10.0	2.0
20	12.5	6.0	7.0	2.0	.0	.0	.5	.5	5.0	.5	11.5	2.5
21	14.5	6.5	4.5	1.0	.0	.0	1.5	.5	9.5	1.5	10.0	3.5
22	16.0	7.0	3.0	1.0	.0	.0	2.5	1.5	9.0	2.0	5.0	1.0
23	16.0	3.5	3.5	1.0	.5	.5	3.0	1.0	7.0	1.0	6.0	1.0
24	9.5	7.0	5.0	1.0	.5	.5	3.0	1.0	7.0	1.0	10.0	1.5
25	14.5	5.5	7.5	3.5	1.0	.5	4.0	2.0	6.0	.5	4.0	1.0
26	15.5	6.0	4.5	1.5	2.5	.5	4.5	1.5	4.5	.5	8.0	1.0
27	16.0	7.0	1.5	1.5	2.5	1.5	3.5	1.0	4.0	.5	4.5	1.0
28	15.0	7.5	1.5	1.5	1.5	.5	6.5	2.0	5.5	.5	---	---
29	14.5	7.0	3.0	1.5	1.0	.5	6.5	2.0	5.5	1.0	---	---
30	14.5	8.0	2.5	1.5	8.5	1.0	5.0	1.0	---	---	4.0	2.0
31	14.0	8.0	---	---	4.0	3.0	7.0	1.0	---	---	5.5	2.0
MONTH	17.0	3.5	16.0	1.0	8.5	.0	7.0	.5	9.5	.0	11.5	.5

BEST COPY AVAILABLE

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	2.5	9.0	5.5	12.5	11.0	22.5	12.5	22.0	14.5	20.5	16.0
2	2.5	.5	9.0	6.0	15.5	10.0	23.5	13.0	20.0	14.0	20.0	13.5
3	7.0	.5	10.0	5.0	14.5	10.0	22.5	12.5	23.5	14.0	20.5	12.5
4	10.0	1.0	9.5	4.5	15.5	9.5	24.0	14.0	23.0	14.5	20.5	13.0
5	9.5	2.0	8.0	4.5	13.5	10.5	24.5	13.0	23.0	14.0	22.0	13.5
6	9.5	2.5	9.5	4.5	13.0	8.5	23.0	14.0	19.0	16.0	22.5	14.5
7	10.0	3.0	8.0	3.5	14.0	9.5	22.0	14.0	23.0	14.5	18.0	13.5
8	10.5	3.0	11.0	3.5	13.5	8.0	20.5	14.5	25.0	14.0	19.5	11.5
9	7.5	3.0	12.0	5.5	16.0	8.5	20.5	14.5	22.0	14.5	21.5	13.5
10	10.0	3.0	11.5	5.5	13.0	8.5	22.5	14.0	24.5	13.5	21.0	13.5
11	8.0	2.0	11.0	5.5	18.5	9.5	23.5	13.5	25.5	13.5	17.5	14.0
12	8.0	1.0	11.5	6.5	19.5	11.5	23.5	12.5	24.0	13.5	21.0	13.5
13	8.0	2.5	11.5	7.0	16.5	12.0	19.5	13.5	24.0	13.5	19.5	14.5
14	9.0	2.0	11.0	8.0	18.0	10.5	22.5	14.0	22.0	14.5	15.5	12.5
15	9.5	2.0	12.5	8.0	19.0	11.5	20.0	14.0	23.5	14.5	14.0	12.5
16	10.0	2.0	12.0	8.5	19.0	11.5	23.5	13.5	25.0	15.0	15.5	12.0
17	11.0	4.0	13.5	8.0	18.5	10.5	21.5	14.0	25.5	15.5	19.5	11.5
18	8.0	5.0	12.0	9.0	20.0	11.5	24.0	13.5	22.5	16.0	20.0	12.5
19	7.5	5.0	14.0	9.0	20.0	11.5	23.5	13.5	24.0	15.5	20.0	13.0
20	6.0	1.0	16.0	10.0	19.5	12.0	23.0	14.5	21.5	15.0	18.5	13.0
21	2.0	1.5	---	---	21.5	11.5	24.0	14.0	19.5	15.0	19.5	13.0
22	6.5	2.0	---	---	20.0	11.5	25.0	14.0	21.5	15.0	18.0	12.0
23	9.5	3.0	---	---	15.0	12.5	25.0	15.5	19.0	14.5	18.0	11.0
24	7.0	4.5	---	---	19.5	11.0	24.0	12.0	17.5	15.5	14.0	9.5
25	8.0	4.0	---	---	18.0	12.0	22.0	14.5	21.0	14.0	12.5	8.5
26	6.5	3.5	---	---	20.0	12.0	17.5	15.0	22.0	14.0	13.0	9.0
27	6.5	2.5	---	---	19.5	12.0	24.0	14.0	22.0	15.0	15.0	9.0
28	5.5	2.0	---	---	22.5	12.0	24.0	14.5	20.5	15.0	8.5	6.0
29	8.0	3.5	---	---	23.0	12.5	23.5	14.5	22.0	14.5	12.0	6.5
30	8.5	3.5	16.0	12.5	17.5	12.5	22.0	14.5	22.0	14.5	13.5	6.5
31	---	---	14.5	10.5	---	---	19.0	15.5	21.0	15.0	---	---
MONTH	11.0	.5	16.0	3.5	23.0	8.0	25.0	12.0	25.5	13.5	22.5	6.0
YEAR	25.5	.0										

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	10.7	10.4	10.5	10.0	10.0	10.2	9.4	7.2	7.6	7.2	7.0
2	---	9.1	10.3	10.6	10.4	10.0	10.6	9.3	7.1	7.5	7.3	7.2
3	---	8.2	10.3	10.2	10.3	10.2	10.3	9.3	7.2	7.5	7.2	7.3
4	---	8.3	10.3	10.1	10.1	11.0	10.0	9.3	7.3	7.4	7.2	7.3
5	---	8.2	10.9	10.1	10.1	11.1	9.7	9.4	7.4	7.4	7.3	7.1
6	7.9	8.5	11.1	10.2	10.1	10.8	9.6	9.3	7.7	7.3	7.3	7.0
7	7.8	8.4	10.3	10.3	9.9	11.1	9.5	9.8	7.7	7.4	7.5	7.2
8	7.8	8.5	10.0	10.2	9.6	11.0	9.5	9.5	7.9	7.5	7.6	7.4
9	8.0	9.5	10.3	10.5	9.8	11.1	9.8	9.1	7.9	7.5	7.5	7.0
10	8.1	9.3	10.4	10.7	9.6	11.1	9.5	9.0	8.1	7.4	7.1	7.0
11	8.4	8.6	10.5	10.5	9.7	11.0	9.8	9.0	7.8	7.4	6.9	7.1
12	8.6	---	10.3	10.7	10.2	11.0	10.0	8.9	7.8	7.3	6.9	7.0
13	8.6	---	10.7	11.0	9.7	10.9	9.9	8.8	7.8	7.3	6.9	7.1
14	8.5	---	10.9	11.0	9.5	10.9	9.9	8.8	7.6	7.2	6.9	7.5
15	8.9	10.6	10.9	11.0	9.8	10.9	9.9	8.7	7.6	7.3	6.8	7.6
16	9.1	9.3	11.0	11.1	10.1	11.1	9.7	8.6	7.7	7.1	6.6	7.5
17	9.0	9.4	11.1	11.0	10.1	10.8	9.6	8.7	7.8	7.2	6.5	7.4
18	8.7	9.7	11.1	10.9	10.2	10.9	9.7	8.8	7.8	7.0	6.9	7.4
19	9.1	10.1	10.8	11.0	10.4	10.5	9.7	8.6	7.9	7.0	7.1	7.3
20	9.6	9.9	10.5	11.1	10.2	10.3	10.5	8.3	7.8	6.8	7.2	7.3
21	9.8	10.2	10.5	10.8	9.8	10.1	11.1	---	7.5	6.6	7.6	7.4
22	9.7	10.6	10.5	10.5	9.6	10.9	10.4	---	7.6	6.5	8.5	7.6
23	9.8	10.8	10.6	10.5	10.1	10.6	9.9	---	7.9	6.5	6.9	7.6
24	10.0	10.5	10.8	10.5	10.0	10.1	9.9	---	7.9	7.0	7.4	8.0
25	9.9	9.8	10.6	10.3	10.2	10.6	9.7	---	8.0	6.7	5.2	8.5
26	10.3	10.8	10.0	10.3	10.5	10.1	9.9	---	7.9	6.9	2.2	8.3
27	10.4	11.0	10.1	10.5	10.8	10.3	10.2	---	7.9	6.9	.9	8.3
28	10.5	10.9	10.7	10.2	10.6	---	10.3	---	7.7	6.9	2.5	9.1
29	10.7	10.7	10.8	10.2	10.2	---	9.8	---	7.6	7.0	6.8	8.9
30	10.5	11.0	10.3	10.4	---	10.2	9.7	6.8	7.7	7.0	7.0	8.6
31	10.8	---	10.1	10.2	---	10.2	---	7.0	---	7.1	7.0	---
TOTAL	249.2	262.6	327.1	327.1	291.6	308.8	298.3	194.4	230.8	221.2	203.9	227.0
MEAN	9.2	9.7	10.6	10.6	10.1	10.7	9.9	8.8	7.7	7.1	6.6	7.6
MAX	10.8	11.0	11.1	11.1	10.8	11.1	11.1	9.8	8.1	7.6	8.5	9.1
MIN	7.8	8.2	10.0	10.1	9.5	10.0	9.5	6.8	7.1	6.5	.9	7.0

WTR YR 1984 TOTAL 3142.0 MEAN 9.0 MAX 11.1 MIN .9

BEST COPY AVAILABLE

06719740 RALSTON CREEK ABOVE RALSTON RESERVOIR NEAR GOLDEN, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.1	7.6	13.8	8.8	11.0	9.9	10.7	10.3	10.7	9.4	10.5	9.4
2	---	---	10.6	6.4	10.6	10.0	11.0	10.3	11.0	9.9	10.6	9.4
3	---	---	10.9	6.0	10.7	10.0	10.5	9.8	10.7	9.9	10.6	9.5
4	---	---	10.7	6.1	10.6	10.0	10.4	10.0	10.7	9.8	11.4	10.5
5	---	---	10.8	6.2	11.1	10.6	10.3	9.8	10.6	9.5	11.4	10.5
6	9.1	6.9	11.6	6.5	11.3	10.6	10.5	9.9	10.7	9.4	11.5	9.7
7	9.2	6.9	11.6	6.6	10.5	10.2	10.6	10.0	10.7	9.2	11.7	10.6
8	9.1	7.1	10.3	6.8	10.3	9.5	10.6	9.8	10.2	9.2	11.9	10.1
9	9.1	7.1	11.3	8.6	10.7	9.8	10.7	10.2	10.4	9.2	11.6	10.5
10	9.4	7.2	10.8	8.0	10.7	10.0	11.4	10.1	10.1	9.2	12.0	10.2
11	9.6	7.4	9.4	8.0	10.9	9.9	10.8	10.1	10.2	9.3	11.6	10.5
12	9.7	8.0	---	---	10.5	10.1	11.1	10.3	10.6	9.4	11.7	10.2
13	9.7	7.5	---	---	11.0	10.5	11.3	10.6	10.2	9.2	11.8	9.7
14	9.6	7.5	---	---	11.2	10.6	11.5	10.8	10.0	9.1	11.6	9.9
15	10.0	8.2	12.2	9.0	11.2	10.7	11.3	10.8	10.3	9.3	11.7	9.9
16	10.3	8.4	10.3	8.9	11.3	10.7	11.3	10.7	10.6	9.3	11.4	10.5
17	10.2	7.7	10.0	8.8	11.4	10.7	11.3	10.7	10.5	9.5	11.6	9.8
18	10.0	7.9	10.4	9.0	11.4	10.7	11.2	10.7	10.7	9.5	11.3	10.6
19	10.7	8.0	10.6	9.6	11.2	10.4	11.2	10.7	10.8	9.5	11.4	9.5
20	12.5	7.8	10.6	8.9	10.7	10.4	11.3	10.7	10.8	9.4	11.1	9.1
21	13.6	7.9	10.7	9.7	10.8	10.4	11.1	10.4	10.4	9.0	10.7	9.2
22	12.8	7.5	10.9	10.3	10.6	10.4	10.8	10.3	10.3	8.9	11.5	10.1
23	13.3	7.5	11.1	10.5	10.7	10.4	10.8	10.3	10.8	9.5	11.1	9.8
24	13.2	7.8	11.0	10.1	10.8	10.7	10.8	10.3	10.7	9.0	11.0	8.8
25	12.9	8.6	10.2	9.4	10.8	10.2	10.5	9.9	10.7	9.4	11.2	10.1
26	12.3	8.9	11.3	9.8	10.3	9.8	10.5	10.0	11.0	9.9	10.8	9.0
27	13.2	8.2	11.2	10.8	10.3	9.9	10.9	10.0	11.2	10.1	10.8	10.0
28	13.8	8.3	11.1	10.6	10.9	10.3	10.6	9.8	11.1	9.9	---	---
29	13.9	8.5	11.0	10.5	11.0	10.6	10.7	9.9	10.7	9.3	---	---
30	13.1	8.5	11.3	10.8	10.6	10.0	11.1	9.9	---	---	10.4	9.9
31	13.0	9.3	---	---	10.3	9.9	10.8	9.7	---	---	10.6	9.7
MONTH	13.9	6.9	13.8	6.0	11.4	9.5	11.5	9.7	11.2	8.9	12.0	8.8

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.3	10.0	9.9	8.9	7.3	6.9	8.2	7.2	7.7	6.5	7.4	6.6
2	10.8	10.2	9.7	8.9	7.6	6.8	8.1	6.8	7.6	6.9	7.8	6.7
3	10.9	9.3	9.9	8.4	7.6	6.9	8.1	7.0	7.7	6.6	7.9	6.7
4	11.0	8.8	9.9	8.4	7.7	6.9	8.0	6.8	7.7	6.6	7.9	6.7
5	10.5	8.7	9.8	8.9	7.6	7.2	8.0	6.7	7.8	6.6	7.7	6.4
6	10.3	8.6	9.7	8.7	8.1	7.3	7.9	6.9	7.8	6.9	7.6	6.4
7	10.2	8.7	10.3	9.1	8.0	7.4	7.9	6.9	8.4	6.9	7.8	6.7
8	10.3	8.4	10.3	8.5	8.3	7.5	7.9	7.1	9.0	6.6	8.1	6.6
9	10.3	9.2	9.8	8.3	8.4	7.3	8.0	7.1	8.7	6.5	7.7	6.2
10	10.4	8.6	9.7	8.4	8.6	7.7	7.9	7.0	8.8	6.0	7.8	6.3
11	10.6	9.0	9.7	8.2	8.4	7.2	8.0	6.9	8.2	5.8	7.8	6.6
12	10.9	9.0	9.4	8.4	8.3	7.3	8.0	6.6	8.5	6.3	7.7	6.4
13	10.6	9.2	9.3	8.3	8.4	7.2	7.7	7.0	7.8	5.9	7.7	6.6
14	10.8	8.8	9.2	8.5	8.1	7.1	7.7	6.7	7.7	6.0	8.0	6.9
15	10.9	8.9	9.0	8.2	8.1	6.9	7.7	6.9	8.0	5.8	8.1	7.2
16	10.6	8.7	9.0	8.3	8.2	7.4	7.6	6.7	8.2	5.7	8.0	7.0
17	10.5	8.6	9.3	8.1	8.3	7.3	7.6	6.6	8.2	5.3	8.1	6.8
18	10.0	9.2	9.1	8.3	8.3	7.3	7.6	6.3	8.5	6.0	8.1	6.7
19	10.1	9.3	9.1	8.1	8.4	7.2	7.5	6.2	8.6	5.9	8.0	6.4
20	11.1	9.5	8.9	7.5	8.4	7.0	7.3	5.9	8.4	6.1	8.1	6.9
21	11.1	10.9	---	---	8.2	7.0	7.4	5.8	---	---	8.2	6.7
22	11.0	9.6	---	---	8.1	7.2	7.1	5.5	---	---	8.5	7.1
23	10.7	9.0	---	---	8.2	7.6	7.1	6.0	---	---	8.4	6.9
24	10.3	9.6	---	---	8.4	7.4	7.9	6.2	---	---	8.5	7.3
25	10.2	8.9	---	---	8.4	7.6	7.0	6.2	---	---	9.1	7.9
26	10.3	9.5	---	---	8.4	7.5	7.2	6.6	---	---	9.0	7.7
27	10.7	9.5	---	---	8.5	7.5	7.4	6.3	---	---	8.9	7.8
28	10.8	9.8	---	---	8.4	7.3	7.6	6.1	---	---	9.6	8.5
29	10.4	9.0	---	---	8.3	6.9	7.5	6.4	6.9	6.6	9.5	8.3
30	10.4	9.0	7.5	6.6	8.2	7.4	8.1	5.9	7.6	6.4	9.3	7.9
31	---	---	7.4	6.5	---	---	7.5	6.5	7.4	6.5	---	---
MONTH	11.1	8.4	10.3	6.5	8.6	6.8	8.2	5.5	9.0	5.3	9.6	6.2
YEAR	13.9	5.3										

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO

LOCATION.--Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec.34, T.1 S., R.67 W., Adams County, Hydrologic Unit 10190003, on right bank 500 ft upstream from bridge on State Highway 22 and 0.2 mi northwest of Henderson.

DRAINAGE AREA.--4,713 mi^2.

PERIOD OF RECORD.--May 1926 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934-36(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,003.12 ft, National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to June 1, 1960. June 1, 1960, to May 10, 1969, water-stage recorder at site 1,200 ft upstream at datum 2.00 ft, higher. May 11 to Oct. 2, 1969, nonrecording gage at site 500 ft downstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1927-74), 366 ft^3/s; 265,200 acre-ft/yr, prior to completion of Chatfield Dam; 9 years (water years 1976-84), 642 ft^3/s; 465,100 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s, May 6, 1973, gage height, 11.67 ft, from rating curve extended above 7,200 ft^3/s, partly on basis of flow-over-road measurement of peak flow; maximum gage height, 12.93 ft, June 17, 1965, site and datum then in use; minimum daily discharge, 4.4 ft^3/s, Apr. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,800 ft^3/s at 0200 Aug. 21, gage height, 6.73 ft; minimum daily, 200 ft^3/s, Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433	340	340	664	622	588	500	1800	1380	1530	925	2300
2	320	330	350	610	634	577	520	3240	2060	1190	1240	2300
3	320	320	350	640	694	572	540	3340	2240	1290	1720	2080
4	300	320	360	730	664	616	840	3060	2320	1220	1940	1970
5	260	300	550	788	664	555	802	2340	2060	1070	1630	1500
6	260	320	430	795	658	594	720	2840	1860	1020	1570	1520
7	230	380	451	718	658	634	720	2450	1980	866	1680	1400
8	200	390	629	688	664	566	740	2530	1900	630	1390	1190
9	210	604	694	670	652	577	820	2850	1730	590	1080	1170
10	220	582	670	610	664	582	1450	2340	1330	769	1100	1070
11	240	460	658	594	682	572	1670	2380	1650	769	860	866
12	260	433	646	577	670	572	1690	2180	1690	840	834	906
13	240	390	616	555	658	572	1550	2630	2250	1060	918	918
14	230	380	560	515	762	577	1470	3950	2970	1240	834	1000
15	210	380	545	530	970	588	1330	4290	1890	1250	776	1070
16	250	390	535	525	670	622	1250	4310	2050	1050	840	1330
17	260	400	515	510	616	594	970	4210	2140	700	860	1370
18	260	420	500	492	577	664	1140	4060	2380	460	932	1280
19	250	724	510	510	572	658	1590	3440	2020	880	1650	1260
20	250	464	530	510	550	762	2190	2980	1830	420	2580	854
21	290	400	577	535	582	762	2720	2990	1790	646	5220	788
22	340	350	628	535	572	899	3170	3070	1770	640	3290	570
23	340	340	652	525	555	1240	3140	3150	1650	688	3260	450
24	320	320	550	510	545	1030	3550	3070	1630	912	3640	460
25	300	330	560	540	545	1020	2880	2590	1540	906	4140	590
26	300	330	616	520	652	944	2990	3010	1530	808	3800	610
27	300	300	664	505	658	743	2990	2930	1470	788	3600	640
28	290	320	718	572	582	640	2560	2640	1330	1030	3390	932
29	290	370	577	646	616	520	2600	1890	1240	1110	3120	970
30	320	360	566	640	---	520	2570	1450	1430	814	2930	873
31	350	---	640	604	---	572	---	1170	---	1460	2550	---
TOTAL	8643	11747	17187	18363	18608	20932	51672	89180	55110	28646	64299	34237
MEAN	279	392	554	592	642	675	1722	2877	1837	924	2074	1141
MAX	433	724	718	795	970	1240	3550	4310	2970	1530	5220	2300
MIN	200	300	340	492	545	520	500	1170	1240	420	776	450
AC-FT	17140	23300	34090	36420	36910	41520	102500	176900	109300	56820	127500	67910

CAL YR 1983 TOTAL 503495 MEAN 1379 MAX 6030 MIN 200 AC-FT 998700
WTR YR 1984 TOTAL 418624 MEAN 1144 MAX 5220 MIN 200 AC-FT 830300

NOTE.--NO GAGE-HEIGHT RECORD OCT. 2 TO NOV. 8.

06724000 ST. VRAIN CREEK AT LYONS, CO

LOCATION.--Lat 40°13'05", long 105°15'34", in NW¼NW¼ sec.20, T.3 N., R.70 W., Boulder County, Hydrologic Unit 10190005, on left bank 75 ft southwest of U.S. Highway 36 (State Highways 7 and 66) at southeast edge of Lyons, 400 ft upstream from St. Vrain Supply Canal, and 0.4 mi downstream from confluence of North and South St. Vrain Creeks.

DRAINAGE AREA.--212 mi^2.

PERIOD OF RECORD.--Streamflow records, August 1887 to September 1891, June 1895 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Lyons" 1901, 1903. Water-quality data available, October 1977 to February 1981.

REVISED RECORDS.--WSP 1310: 1898, 1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,292 ft, from topographic map. Prior to Apr. 6, 1923, nonrecording gages near present site at different datums. Apr. 6, 1923, to Sept. 30, 1956, water-stage recorder at same site at datum 1.00 ft, higher.

REMARKS.--Records good. Diversions above station for irrigation of about 20,000 acres. Flow partly regulated by small reservoirs above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--93 years (water years 1888-91, 1896-1984), 129 ft^3/s; 93,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft^3/s June 22, 1941, gage height, 9.06 ft, present datum, from floodmark, from rating curve extended above 2,100 ft^3/s, on basis of slope-area measurement at gage height, 8.90 ft; no flow Jan. 19, 20, 1922, Jan. 12, 13, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred in June 1864 and May 1876. Flood in May or June 1894 reached a stage of 9.13 ft, from information by local resident, discharge, about 9,800 ft^3/s. For discussions of these floods, see WSP 997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft^3/s at 2100 Aug. 1, gage height, 5.36 ft; minimum daily, 14 ft^3/s Dec. 16, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	27	24	22	18	20	36	218	655	798	391	214
2	42	26	22	20	18	20	38	221	627	732	345	232
3	46	22	22	22	18	22	37	224	588	648	288	204
4	44	27	22	22	16	20	36	228	542	548	259	174
5	41	24	22	22	18	18	36	210	454	478	232	151
6	37	20	22	22	20	20	36	204	406	454	224	148
7	37	20	24	22	18	20	41	187	376	424	251	171
8	40	29	26	22	18	20	47	171	325	430	263	200
9	41	29	24	24	18	20	55	174	306	430	210	204
10	38	30	20	22	18	22	58	200	293	562	207	181
11	44	33	18	20	16	20	65	251	288	460	194	184
12	44	33	18	16	14	18	56	316	316	335	200	181
13	42	32	18	20	20	18	52	436	355	293	232	162
14	41	29	16	20	22	18	42	562	542	306	232	156
15	41	27	16	16	22	20	47	562	627	365	251	131
16	42	28	14	20	22	24	48	600	934	370	247	131
17	41	24	16	18	18	22	56	581	798	320	251	131
18	46	29	16	16	20	26	70	542	683	288	255	121
19	41	24	20	22	18	24	78	496	676	271	267	118
20	41	24	18	22	22	24	104	478	704	298	259	121
21	42	28	20	20	22	24	102	484	676	330	275	121
22	42	26	24	22	18	26	118	490	683	320	267	108
23	44	18	27	20	18	27	162	516	669	365	247	108
24	41	22	29	22	20	30	165	594	648	424	228	108
25	40	28	29	20	16	33	218	895	588	355	275	108
26	42	24	33	18	22	34	255	865	607	466	259	108
27	42	24	32	18	18	40	221	676	627	442	228	108
28	33	24	29	20	16	34	204	510	627	454	210	113
29	30	24	29	20	20	34	210	460	620	400	204	108
30	28	22	27	20	---	36	218	496	662	466	197	97
31	29	---	22	18	---	34	---	562	---	365	194	---
TOTAL	1243	777	699	628	544	768	2911	13409	16902	13197	7642	4402
MEAN	40.1	25.9	22.5	20.3	18.8	24.8	97.0	433	563	426	247	147
MAX	46	33	33	24	22	40	255	895	934	798	391	232
MIN	28	18	14	16	14	18	36	171	288	271	194	97
AC-FT	2470	1540	1390	1250	1080	1520	5770	26600	33530	26180	15160	8730

CAL YR 1983 TOTAL 72628 MEAN 199 MAX 1300 MIN 13 AC-FT 144100
WTR YR 1984 TOTAL 63122 MEAN 172 MAX 934 MIN 14 AC-FT 125200

06725500 MIDDLE BOULDER CREEK AT NEDERLAND, CO

LOCATION.--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec.13, T.1 S., R.73 W., Boulder County, Hydrologic Unit 10190005, on left bank at Nederland just downstream from North Beaver Creek and 1,000 ft upstream from Barker Reservoir.

DRAINAGE AREA.--36.2 mi².

PERIOD OF RECORD.--June 1907 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and compound sharp-crested weir. Datum of gage is 8,186.0 ft, Public Service Co. datum. Prior to Mar. 18, 1909, at datum 4.0 ft, lower. Mar. 18, 1909, to Apr. 23, 1952, at datum 2.5 ft, lower than present datum.

REMARKS.--Records good. No diversion above station. Flow regulated at times by Jasper Lake, capacity, 326 acre-ft. North Beaver Creek entered Middle Boulder Creek downstream from station June 1 to Dec. 31,1907, March 1911 to Dec. 31, 1916. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--77 years, 54.6 ft³/s; 39,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 811 ft³/s, June 2, 1914, gage height, 5.37 ft, datum then in use, by computation of peak flow over compound weir; minimum daily, 0.8 ft³/s, Jan. 14, 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 25	0500	*490	3.28	June 30	2300	461	3.18
June 15	2200	420	3.00	July 10	0430	417	3.06

Minimum daily discharge, 4.0 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	9.5	8.3	5.3	6.1	6.5	16	351	398	141	90
2	19	12	9.3	8.3	5.3	6.3	6.3	18	315	364	134	78
3	20	13	9.3	8.0	5.5	5.7	6.0	18	289	323	120	66
4	21	12	9.1	7.5	5.5	5.0	6.0	19	282	286	110	58
5	22	12	8.0	7.5	5.5	4.5	7.3	20	252	272	116	53
6	21	12	8.0	6.9	5.3	5.0	7.3	21	220	262	143	50
7	19	12	9.0	6.7	5.5	6.0	7.3	19	215	249	143	61
8	18	11	9.5	6.7	5.7	6.3	8.7	19	178	256	128	66
9	17	7.9	9.5	6.5	5.5	6.1	8.7	25	160	239	118	62
10	17	10	9.3	6.7	5.5	6.1	8.5	36	136	310	104	51
11	20	11	8.9	6.5	6.3	6.1	9.3	56	136	254	97	48
12	21	10	8.3	6.3	6.1	5.7	8.4	83	162	215	97	51
13	21	10	8.0	6.3	6.5	6.3	8.5	130	215	204	97	50
14	20	9.5	8.0	6.3	6.3	6.9	8.0	178	325	229	97	47
15	17	10	8.0	6.3	6.1	6.9	8.5	213	336	208	99	48
16	16	11	8.5	6.0	6.3	6.5	12	249	364	183	95	56
17	15	11	9.0	5.9	5.9	6.5	17	254	346	167	118	51
18	16	10	8.5	4.0	6.1	6.3	21	237	312	151	101	45
19	15	9.0	8.0	4.5	7.1	6.0	19	213	323	151	92	42
20	15	9.0	8.0	4.5	5.5	7.0	15	256	328	158	93	42
21	14	9.0	7.0	4.5	6.2	7.1	19	307	338	176	106	42
22	14	8.5	7.5	5.0	6.3	6.9	26	318	338	180	97	42
23	14	8.0	8.0	5.0	6.7	6.5	17	349	325	199	88	39
24	14	9.0	7.5	5.0	6.3	6.0	18	404	318	206	93	36
25	13	10	9.0	5.0	6.1	6.5	21	417	299	180	99	39
26	13	9.0	9.5	5.3	6.3	6.9	20	312	312	165	92	40
27	13	8.0	9.0	5.3	5.0	6.3	16	294	323	174	82	41
28	13	9.0	7.5	5.1	5.5	5.5	17	279	318	165	75	40
29	13	8.5	8.0	5.1	5.9	6.0	15	282	323	162	71	37
30	12	9.0	8.5	5.1	---	6.9	14	307	349	156	66	36
31	12	---	8.5	5.1	---	6.5	---	328	---	139	65	---
TOTAL	515	302.4	263.7	185.2	171.1	192.4	382.3	5677	8488	6781	3177	1507
MEAN	16.6	10.1	8.51	5.97	5.90	6.21	12.7	183	283	219	102	50.2
MAX	22	13	9.5	8.3	7.1	7.1	26	417	364	398	143	90
MIN	12	7.9	7.0	4.0	5.0	4.5	6.0	16	136	139	65	36
AC-FT	1020	600	523	367	339	382	758	11260	16840	13450	6300	2990

CAL YR 1983 TOTAL 26633.9 MEAN 73.0 MAX 458 MIN 5.1 AC-FT 52830
WTR YR 1984 TOTAL 27642.1 MEAN 75.5 MAX 417 MIN 4.0 AC-FT 54830

06726900 BUMMERS GULCH NEAR EL VADO, CO.

LOCATION.--Lat 40°00'42", long 105°20'53", in NE¼NW¼ sec.33, T.1 N., R.71 W., Boulder County , Hydrologic Unit 10190005, on left bank, 0.8 mi north of Highway 119 on Sugarloaf Road, 0.1 mi south of service road to Boulder Filtration Plant, 0.65 mi upstream from mouth and, 3.7 mi from Boulder County courthouse.

DRAINAGE AREA.--3.87 mi^2.

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,270 ft, from topographic map.

REMARKS.--Records good. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.8 ft^3/s Apr. 25, 1984, gage height, 2.65 ft; minimum daily, 0.19 ft^3/s, Sept. 10, 1984.

EXTREMES FOR PERIOD JULY TO SEPTEMBER 1983.--Maximum discharge, 4.0 ft^3/s, Aug. 2, gage height, 2.53 ft, minimum daily, 0.34 ft^3/s, Sept. 9.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.8 ft^3/s at 1645 April 25, gage height, 2.65 ft; minimum daily, 0.19 ft^3/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	1.4	.46
2										---	1.7	.41
3										---	1.4	.39
4										---	1.3	.46
5										---	1.3	.44
6										---	1.2	.44
7										---	1.1	.39
8										---	1.0	.37
9										---	.90	.34
10										---	.83	.44
11										---	.83	.44
12										---	.86	.44
13										---	.90	.44
14										---	.96	.46
15										---	.86	.53
16										---	.83	.48
17										---	.83	.46
18										---	.90	.46
19										---	.86	.48
20										---	.76	.72
21										---	.72	.69
22										---	.72	.72
23										---	.69	.72
24										---	.62	.69
25										---	.58	.69
26										---	.58	.62
27										1.4	.53	.62
28										1.3	.53	.69
29										1.2	.55	.80
30										1.3	.55	.80
31										1.3	.50	---
TOTAL										---	27.29	16.09
MEAN										---	.88	.54
MAX										---	1.7	.80
MIN										---	.50	.34
AC-FT										---	54	32

06726900 BUMMERS GULCH NEAR EL VADO, CO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.32	.42	.30	.45	.38	.75	5.2	1.7	.84	.47	.25
2	.78	.32	.41	.30	.46	.40	.73	5.7	1.6	.83	.48	.26
3	.80	.33	.42	.31	.46	.39	.74	5.9	1.5	.83	.39	.24
4	.79	.34	.42	.34	.45	.37	.80	6.1	1.5	.82	.40	.24
5	.77	.32	.42	.41	.47	.37	.86	5.9	1.4	.79	.43	.22
6	.75	.32	.40	.45	.47	.37	.94	5.9	1.4	.79	.38	.20
7	.76	.32	.45	.47	.48	.37	1.1	5.7	1.4	.79	.41	.25
8	.81	.37	.34	.48	.46	.37	1.3	5.5	1.4	.77	.36	.24
9	.80	.38	.31	.48	.47	.37	1.5	5.0	1.3	.76	.33	.20
10	.78	.39	.31	.46	.48	.38	1.4	4.8	1.3	.76	.30	.19
11	.91	.42	.32	.46	.48	.37	1.6	4.6	1.2	.74	.28	.20
12	.94	.41	.32	.46	.48	.41	1.4	4.2	1.3	.72	.25	.20
13	1.0	.39	.34	.46	.49	.41	1.4	4.0	1.3	.72	.26	.20
14	1.0	.37	.34	.46	.51	.41	1.4	4.0	1.2	.71	.32	.24
15	1.1	.34	.37	.46	.50	.41	1.4	3.7	1.2	.66	.30	.27
16	1.3	.34	.37	.46	.49	.41	1.4	3.4	1.1	.52	.26	.28
17	1.2	.36	.39	.46	.46	.41	1.6	3.2	1.1	.35	.26	.24
18	1.2	.43	.39	.46	.45	.47	1.8	3.1	1.1	.35	.28	.20
19	1.3	.43	.41	.46	.45	.51	2.0	2.9	1.1	.33	.27	.20
20	1.4	.34	.41	.46	.46	.61	2.6	2.7	1.1	.33	.49	.20
21	1.4	.32	.43	.45	.46	.61	2.5	2.6	1.1	.34	.53	.20
22	1.4	.35	.43	.35	.45	.57	3.0	2.6	1.1	.31	.47	.21
23	1.3	.37	.45	.32	.42	.63	4.0	2.3	1.1	.32	.43	.21
24	1.9	.35	.46	.32	.41	.77	5.9	2.1	1.1	.35	.39	.24
25	2.1	.34	.47	.34	.43	.78	7.2	2.3	1.1	.36	.39	.31
26	1.4	.37	.43	.34	.39	.82	6.9	2.1	.97	.38	.38	.32
27	.36	.34	.30	.34	.39	.80	6.3	1.9	.90	.36	.29	.32
28	.34	.36	.30	.36	.39	.80	5.9	1.8	.86	.39	.27	.37
29	.36	.40	.30	.39	.38	.77	5.7	1.7	.86	.46	.26	.42
30	.34	.41	.30	.40	---	.77	5.2	1.6	.86	.36	.25	.43
31	.32	---	.30	.41	---	.76	---	1.5	---	.40	.24	---
TOTAL	30.38	10.85	11.73	12.62	13.14	16.27	79.32	114.0	36.15	17.44	10.82	7.55
MEAN	.98	.36	.38	.41	.45	.52	2.64	3.68	1.20	.56	.35	.25
MAX	2.1	.43	.47	.48	.51	.82	7.2	6.1	1.7	.84	.53	.43
MIN	.32	.32	.30	.30	.38	.37	.73	1.5	.86	.31	.24	.19
AC-FT	60	22	23	25	26	32	157	226	72	35	21	15

WTR YR 1984 TOTAL 360.27 MEAN .98 MAX 7.2 MIN .19 AC-FT 715

06727000 BOULDER CREEK NEAR ORODELL, CO

LOCATION.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank along State Highway 119, 0.7 mi southwest of old Orodell, 1.1 mi upstream from Fourmile Creek, and 2.9 mi southwest of courthouse in Boulder.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--August to October 1887, April to October 1888, October 1906 to November 1914, March 1916 to current year. Monthly discharge only for some periods, published in WSP 1310. Figures of daily discharge for Feb. 3-10, 17-25, 1912, published in WSP 326, have been found to be unreliable and should not be used. Published as North Boulder Creek, Colorado 1887-88 and as "at Orodell" March 1907 to December 1916.

REVISED RECORDS.--WSP 1310: 1941(M). WSP 1560: 1914(M). WSP 1730: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 5,826 ft, from topographic map. Prior to Sept. 1,1907, nonrecording gage, and Sept. 1, 1907, to May 11, 1917, water-stage recorder, at sites 1.1 mi downstream, just upstream from Fourmile Creek, at different datums.

REMARKS.--Records good. Flow regulated by Barker Reservoir, capacity, 11,500 acre-ft. Low flow during nonirrigation season regulated by Orodell powerplant 1,500 ft upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--76 years (water years 1907-14, 1917-84), 88.7 ft³/s; 64,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft³/s, June 6, 1921, gage height, 4.31 ft, from rating curve extended above 1,200 ft³/s; minimum daily, 1 ft³/s, Jan. 29, Feb. 1-3, 16-24, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods are known to have occcurred in June 1864, May 1876, June 1894, and June 1914, stages and discharges unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 566 ft³/s at 0130 July 2, gage height, 3.52 ft; minimum daily, 6.9 ft³/s, Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	10	10	28	33	24	34	68	404	548	270	88
2	18	10	9.8	29	36	22	35	96	407	549	265	95
3	25	11	9.6	41	37	23	37	98	408	519	236	84
4	25	11	9.8	36	44	22	37	74	397	449	218	69
5	17	11	10	35	45	22	35	76	337	399	217	63
6	10	12	13	35	40	22	37	82	275	375	226	62
7	10	12	13	35	35	22	39	115	268	376	249	77
8	11	13	13	32	37	22	42	116	217	382	223	100
9	25	13	11	34	36	23	47	124	197	388	170	68
10	25	16	14	33	36	22	54	141	203	462	143	58
11	19	22	14	31	34	21	76	164	184	445	114	60
12	21	17	19	32	34	25	66	198	167	348	111	81
13	25	9.2	28	31	37	23	62	236	191	282	106	72
14	25	9.5	28	39	38	23	60	263	229	318	74	75
15	23	16	24	31	32	26	60	235	277	325	85	77
16	33	6.9	25	35	30	26	39	211	394	300	108	87
17	18	12	24	53	29	24	44	233	456	269	111	83
18	15	12	24	138	27	27	53	305	451	246	108	77
19	15	10	20	140	26	22	53	313	429	[illegible]	102	63
20	13	10	36	143	26	28	64	321	444	201	106	45
21	9.1	12	47	143	26	28	61	328	487	222	126	56
22	11	11	140	144	29	31	71	346	506	249	147	58
23	11	11	148	146	27	28	71	344	490	275	154	56
24	7.7	10	143	56	24	30	87	360	479	320	145	47
25	8.7	9.0	143	28	24	29	93	432	430	347	139	59
26	14	9.2	120	33	25	36	91	429	411	316	138	72
27	14	10	33	35	27	36	80	400	452	336	114	61
28	15	13	33	33	24	36	71	358	459	321	101	57
29	14	15	18	32	24	36	70	352	453	323	89	64
30	16	15	28	30	---	33	65	336	484	325	77	59
31	8.7	---	27	30	---	35	---	358	---	289	69	---
TOTAL	531.2	358.8	1235.2	1721	922	827	1734	7512	10986	10715	4541	2073
MEAN	17.1	12.0	39.8	55.5	31.8	26.7	57.8	242	366	346	146	69.1
MAX	33	22	148	146	45	36	93	432	506	549	270	100
MIN	7.7	6.9	9.6	28	24	21	34	68	167	201	69	45
AC-FT	1050	712	2450	3410	1830	1640	3440	14900	21790	21250	9010	4110

CAL YR 1983 TOTAL 45432.9 MEAN 124 MAX 704 MIN 2.3 AC-FT 90120
WTR YR 1984 TOTAL 43156.2 MEAN 118 MAX 49 MIN 6.9 AC-FT 85600

06727500 FOURMILE CREEK AT ORODELL, CO

LOCATION.--Lat 40°01'08", long 105°19'32", in NW¼SE¼ sec.27, T.1 N., R.71 W., Boulder County (Boulder Quadrangle), Hydrologic Unit 10190005, on right bank 30 ft downstream from private bridge, 0.3 mi upstream from Highway 119 and mouth, 2.5 mi west of courthouse in Boulder.

DRAINAGE AREA.--24.1 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--A water-stage recorder. Altitude of gage is 5,7[illegible] ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD JULY TO SEPTEMBER 1983.--Maximum discharge, 12 ft³/s, July 27, gage height, 2.62 ft; minimum daily, 1.1 ft³/s, Sept. 27-28.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 114 ft³/s, May 15, 1984, gage height, 3.59 ft; minimum daily, 1.3 ft³/s, Oct. 3, 28-31, Nov. 5-7, Dec. 2-4, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft³/s at 0915 May 15, gage height, 3.59 ft; minimum daily, 1.3 ft³/s, Oct. 3, 28-31, Nov. 5-7, Dec. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	5.9	2.4
2										---	6.7	2.1
3										---	6.1	2.0
4										---	5.4	2.0
5										---	4.9	2.0
6										---	5.0	1.9
7										---	4.2	1.5
8										---	3.8	1.5
9										---	3.6	1.4
10										---	3.4	1.5
11										---	3.4	1.5
12										---	3.5	1.3
13										---	4.0	1.4
14										---	5.3	1.3
15										---	7.5	1.3
16										---	6.0	1.3
17										---	5.8	1.3
18										---	6.1	1.4
19										---	6.3	1.4
20										---	5.4	1.4
21										---	4.5	1.5
22										---	4.3	1.5
23										---	4.3	1.5
24										---	3.8	1.4
25										---	3.6	1.3
26										10	3.3	1.2
27										10	3.3	1.1
28										9.7	2.8	1.1
29										7.7	2.9	1.7
30										7.1	2.9	1.5
31										6.7	2.8	---
TOTAL										---	140.8	45.7
MEAN										---	4.54	1.52
MAX										---	7.5	2.4
MIN										---	2.8	1.1
AC-FT										---	279	91

BEST COPY AVAILABLE

06727500 FOURMILE CREEK AT ORODELL, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.4	1.7	2.0	2.0	2.2	7.3	19	29	11	7.7	2.5
2	1.4	1.4	1.3	2.0	1.9	1.8	6.9	21	28	11	7.3	2.4
3	1.3	1.4	1.3	2.0	1.9	1.7	7.0	24	25	10	5.3	2.3
4	1.5	1.4	1.3	2.0	1.8	1.7	6.7	28	23	9.8	4.9	2.3
5	1.5	1.3	1.4	2.0	1.8	1.7	6.8	32	21	9.2	4.7	2.2
6	1.4	1.3	1.4	1.9	1.8	1.7	8.1	35	19	8.6	4.6	2.2
7	1.4	1.3	1.5	2.0	1.8	1.8	9.3	35	18	8.1	4.5	2.1
8	1.4	1.5	1.9	2.1	1.8	1.8	11	33	15	7.9	4.0	2.1
9	1.6	1.6	2.0	2.0	1.8	1.8	13	34	14	7.7	3.4	2.0
10	1.5	1.5	2.0	2.1	1.9	2.2	13	44	13	8.0	3.2	2.0
11	1.6	1.6	1.9	2.1	1.9	2.0	15	65	11	7.0	2.8	1.9
12	1.8	1.8	1.9	1.9	1.9	2.0	15	80	11	6.3	2.6	1.9
13	1.8	1.7	1.8	1.8	2.0	2.1	14	100	12	5.9	2.6	1.8
14	1.7	1.6	1.6	1.8	2.0	2.6	14	105	14	5.6	2.9	1.8
15	1.6	1.4	1.6	1.9	2.0	3.3	13	102	13	5.0	2.6	1.7
16	1.7	1.4	1.7	1.9	2.1	3.3	14	94	15	4.7	2.4	1.7
17	1.7	1.5	1.8	1.9	2.4	3.0	16	79	15	4.2	2.4	1.7
18	1.7	1.8	1.8	1.9	2.4	3.3	19	66	15	4.0	3.4	1.6
19	1.7	1.8	1.8	1.9	2.3	2.9	19	53	15	3.4	2.5	1.6
20	1.7	1.6	1.9	1.9	2.2	3.2	20	47	15	3.2	2.7	1.6
21	1.6	1.9	1.9	1.9	2.4	3.6	20	50	15	3.1	3.8	1.5
22	1.6	1.9	1.9	1.9	1.9	4.7	19	50	14	3.0	3.4	1.5
23	1.5	1.9	1.9	2.0	2.0	5.0	22	45	14	2.9	3.2	1.4
24	1.7	2.0	1.9	2.2	2.1	5.2	34	48	13	2.8	2.8	1.4
25	1.8	2.2	1.9	2.4	2.2	6.8	40	57	12	2.7	2.9	1.4
26	1.6	2.0	1.9	2.1	2.2	7.9	42	49	12	2.8	2.9	1.4
27	1.4	2.0	1.9	2.0	2.2	8.6	34	39	11	2.9	2.8	1.5
28	1.3	2.0	2.0	1.9	2.2	9.1	28	33	11	2.8	2.7	1.6
29	1.3	2.0	2.0	1.8	2.2	8.7	24	29	11	3.6	2.7	1.7
30	1.3	2.0	2.0	1.9	---	8.3	21	26	11	3.2	2.6	1.8
31	1.3	---	2.0	2.0	---	7.4	---	26	---	4.7	2.5	---
TOTAL	47.8	50.2	54.9	61.2	59.1	121.4	532.1	1548	465	175.1	108.8	54.6
MEAN	1.54	1.67	1.77	1.97	2.04	3.92	17.7	49.9	15.5	5.65	3.51	1.82
MAX	1.8	2.2	2.0	2.4	2.4	9.1	42	105	29	11	7.7	2.5
MIN	1.3	1.3	1.3	1.8	1.8	1.7	6.7	19	11	2.7	2.4	1.4
AC-FT	95	100	109	121	117	241	1060	3070	922	347	216	108

WTR YR 1984 TOTAL 3278.2 MEAN 8.96 MAX 105 MIN 1.3 AC-FT 6500

06729500 SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, CO

LOCATION.--Lat 39°55'52", long 105°17'43", in SE¼ sec.26, T.1 S., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank 0.2 mi downstream from South Draw, 1.0 mi west of Eldorado Springs, 1.8 mi downstream from South Boulder diversion canal, 5.0 mi south of Boulder, and 6.7 mi downstream from Gross Reservoir.

DRAINAGE AREA.--109 mi².

PERIOD OF RECORD.--April 1888 to October 1892, May 1895 to September 1901, August 1904 to current year. No winter records for water years 1889-92, 1900. Monthly discharge only for some periods, published in WSP 1310. Prior to January 1911, published as "at" or "near Marshall"; January 1911 to December 1913 as "at Eldorado Springs." Records for periods June 1900 to September 1901, August 1904 to September 1908, and October 1909 to September 1911, are not adjusted for diversions by Community ditch and South Boulder and Coal Creek ditch; all other records contain flow in these ditches.

REVISED RECORDS.--WSP 856: 1937(M). WSP 1310: 1937. WSP 1440: 1896. WSP 1710: Drainage area. WSP 1730: 1959-60.

GAGE.--Water-stage recorder. Altitude of gage is 6,080 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to May 10, 1940.

REMARKS.--Records good except those for winter period, which are fair. Many small diversions above station for irrigation. Water is imported above Gross Reservoir from Colorado River basin through Moffat water tunnel. Flow regulated since May 1, 1955, by Gross Reservoir, capacity, 43,060 acre-ft, 6.7 mi above station. City of Denver diverts water 1.8 mi above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geolcgical Survey.

AVERAGE DISCHARGE.--28 years (water years 1957-84), 62.7 ft³/s; 45,430 acre-ft/yr, unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,390 ft³/s, Sept. 2, 1938, gage height, 9.24 ft, from floodmarks, site and datum then in use, from rating curve extended above 600 ft³/s, on basis of slope-area measurement of peak flow; no flow Oct. 15, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 334 ft³/s at 1000 July 3, gage height, 2.90 ft; minimum daily, 4.0 ft³/s, Mar. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	22	15	15	16	37	49	240	286	152	58
2	20	16	22	16	13	16	31	62	258	286	152	60
3	19	16	22	18	12	19	26	64	258	306	150	64
4	19	16	22	17	16	14	26	65	246	322	116	64
5	19	15	16	16	18	15	27	62	246	306	100	42
6	19	15	20	16	18	16	30	56	246	298	100	34
7	19	15	22	16	18	17	35	49	240	294	100	31
8	21	15	17	16	17	12	40	42	215	294	87	28
9	20	14	17	14	18	4.0	45	40	203	294	67	28
10	19	16	17	15	17	4.0	60	49	203	266	59	28
11	22	20	17	15	16	4.8	79	58	222	246	58	28
12	25	20	17	14	16	6.8	76	62	240	226	58	28
13	23	20	16	13	12	9.7	76	62	240	206	52	28
14	22	20	16	12	10	14	74	56	222	181	39	28
15	22	19	16	12	10	15	74	59	203	164	33	28
16	22	28	16	13	10	16	74	67	246	161	33	28
17	22	20	16	11	9.0	18	78	76	250	150	39	27
18	22	22	16	12	9.0	19	51	104	222	147	46	26
19	22	21	16	12	9.0	17	35	114	218	139	54	26
20	23	22	12	15	10	18	44	111	209	139	69	26
21	24	22	10	17	12	18	40	111	200	136	81	26
22	25	21	10	16	12	23	40	111	200	136	91	26
23	25	21	10	16	11	27	53	114	200	136	89	25
24	25	21	13	12	12	29	70	106	196	139	62	26
25	20	21	15	12	12	31	76	106	212	142	42	29
26	18	22	18	12	11	30	74	126	222	150	48	26
27	17	23	14	13	10	30	56	136	222	152	54	25
28	16	21	16	14	14	33	45	136	243	152	56	26
29	16	22	16	14	16	37	39	136	258	152	53	26
30	16	22	18	13	---	38	39	178	274	152	52	26
31	16	---	18	15	---	37	---	215	---	152	56	---
TOTAL	639	582	513	442	383.0	604.3	1550	2782	6854	6310	2248	971
MEAN	20.6	19.4	16.5	14.3	13.2	19.5	51.7	89.7	228	204	72.5	32.4
MAX	25	28	22	18	18	38	79	215	274	322	152	64
MIN	16	14	10	11	9.0	4.0	26	40	196	136	33	25
AC-FT	1270	1150	1020	877	760	1200	3070	5520	13590	12520	4460	1930

CAL YR 1983 TOTAL 29346.0 MEAN 80.4 MAX 558 MIN 8.0 AC-FT 58210
WTR YR 1984 TOTAL 23878.3 MEAN 65.2 MAX 322 MIN 4.0 AC-FT 47360

NOTE.--NO GAGE-HEIGHT RECORD DEC. 8 TO FEB. 20.

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO

LOCATION.--Lat 40°09'08", long 105°00'52", in NW¼SW¼ sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on left bank 0.6 mi upstream from mouth, 1.0 mi downstream from State Highway 254, and 4.8 mi southeast of Longmont.

DRAINAGE AREA.--439 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1927 to September 1949, May 1951 to September 1955, October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft, from topographic map. Prior to June 10, 1939, at site 0.8 mi upstream at different datum. June 10, 1939, to Sept. 30, 1949, at site 1.0 mi upstream, at different datum. May 1, 1951, to Sept. 30, 1955, at site 1.4 mi upstream, at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor.

AVERAGE DISCHARGE.--32 years (water years, 1928-49, 1952-55, 1979-84), 65.7 ft^3/s; 47,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,410 ft^3/s, Sept. 3, 1938, gage height, 6.94 ft, site and datum then in use, from rating curve extended above 340 ft^3/s, on basis of slope-area measurement of peak flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 560 ft^3/s at 0500 Apr. 24, gage height, 2.92 ft; minimum daily, 5.0 ft^3/s, Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	52	71	70	70	68	124	200	160	222	68	30
2	15	54	68	70	70	69	122	210	248	225	81	30
3	15	55	64	70	70	69	120	257	222	218	32	30
4	15	55	67	70	70	69	118	220	242	176	7.1	30
5	45	56	64	74	70	69	120	222	263	122	16	30
6	42	56	65	80	70	69	102	225	220	56	7.1	30
7	41	58	71	86	70	79	122	222	200	29	12	30
8	46	63	75	92	70	81	111	233	188	29	52	30
9	51	75	84	81	70	82	120	245	212	37	42	30
10	59	67	72	78	70	82	162	263	208	75	7.1	30
11	54	69	74	76	70	82	185	290	192	100	5.0	30
12	58	75	72	78	70	84	176	324	130	59	5.4	30
13	59	62	78	76	70	84	154	352	147	11	6.3	30
14	107	62	81	82	70	79	138	380	176	16	5.8	30
15	92	63	82	78	70	84	130	384	180	13	10	30
16	90	67	81	81	70	85	132	384	287	10	20	30
17	98	64	74	80	70	81	134	340	384	8.8	41	30
18	90	74	74	78	70	82	160	368	364	6.7	45	30
19	82	90	76	75	70	88	93	372	308	8.4	29	30
20	88	71	74	72	70	85	132	352	287	12	30	30
21	92	74	70	70	70	87	178	352	278	82	30	30
22	82	71	70	70	70	96	218	352	296	63	30	30
23	71	64	70	70	67	112	311	299	284	59	30	30
24	42	67	70	70	68	109	424	269	257	52	30	30
25	42	68	70	70	65	130	352	317	225	79	30	30
26	45	71	70	70	69	138	317	320	160	50	30	30
27	47	71	70	70	69	124	263	308	162	60	30	30
28	47	98	70	70	68	111	228	251	173	69	30	30
29	50	78	70	70	71	111	220	225	180	105	30	30
30	48	78	70	70	---	120	205	190	176	88	30	30
31	54	---	70	70	---	124	---	145	---	78	30	---
TOTAL	1782	2028	2237	2317	2017	2833	5371	8871	6809	2218.9	851.8	900
MEAN	57.5	67.6	72.2	74.7	69.6	91.4	179	286	227	71.6	27.5	30.0
MAX	107	98	84	92	71	138	424	384	384	225	81	30
MIN	15	52	64	70	65	68	93	145	130	6.7	5.0	30
AC-FT	3530	4020	4440	4600	4000	5620	10650	17600	13510	4400	1690	1790

CAL YR 1983 TOTAL 80803.1 MEAN 221 MAX 1600 MIN 7.5 AC-FT 160300
WTR YR 1984 TOTAL 38235.7 MEAN 104 MAX 424 MIN 5.0 AC-FT 75840

NOTE.--NO GAGE-HEIGHT RECORD AUG. 20 TO SEPT. 30.

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 26...	1100	35	890	8.5	10.0	12.8	150	430
NOV 30...	1100	78	800	8.1	.0	11.0	590	620
DEC 28...	1030	70	600	7.9	.0	8.6	300	250
JAN 23...	1130	73	660	7.7	.0	10.2	430	310
FEB 22...	1000	72	560	8.0	5.0	11.6	110	350
MAR 21...	1000	95	590	8.1	9.0	10.6	180	160
APR 17...	1300	116	530	8.7	15.0	11.0	K54	K54
MAY 23...	1000	318	240	7.8	14.0	9.4	290	270
JUN 26...	1530	156	230	7.8	18.5	8.7	K66	580
JUL 16...	1000	9.0	800	8.8	21.5	16.6	K650	K910
AUG 20...	1000	32	660	8.3	21.5	14.0	640	1100
SEP 24...	1100	28	700	8.5	13.0	12.6	230	590

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 26...	290	50	40	70	2	8.9	180	170	58
NOV 30...	250	44	34	62	2	10	172	130	66
DEC 28...	210	43	26	53	2	4.2	165	130	25
JAN 23...	220	41	29	56	2	6.3	173	130	42
FEB 22...	180	35	22	46	2	3.4	145	120	22
MAR 21...	190	42	21	43	1	4.4	127	130	28
APR 17...	250	72	17	14	.4	1.6	121	160	6.1
MAY 23...	77	18	7.8	14	.7	2.1	56	44	8.2
JUN 26...	79	17	8.9	14	.7	1.5	58	41	7.1
JUL 16...	310	55	43	56	1	3.4	167	230	16
AUG 20...	260	50	34	52	1	2.9	180	180	15
SEP 24...	260	50	33	53	1	3.3	176	160	20

K BASED ON NON-IDEAL COLONY COUNT.

06730500 BOULDER CREEK AT MOUTH, NEAR LONGMONT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT									
26...	1.1	7.5	510	.70	49	2.70	1.70	62	48
NOV									
30...	.80	9.3	460	.62	97	1.70	2.00	73	130
DEC									
28...	.80	9.2	390	.53	74	2.00	.770	58	78
JAN									
23...	.90	8.8	420	.57	82	1.90	1.60	60	77
FEB									
22...	.70	7.1	340	.47	67	1.00	1.20	190	70
MAR									
21...	.90	6.2	350	.48	90	.990	.970	48	46
APR									
17...	.40	9.2	350	.48	111	.360	.020	26	21
MAY									
23...	.40	9.1	140	.19	118	.640	.210	130	14
JUN									
26...	.40	7.0	130	.18	56	.820	.210	110	11
JUL									
16...	.80	7.0	510	.70	12	1.30	.150	23	37
AUG									
20...	.90	3.6	450	.61	39	1.20	.260	16	14
SEP									
24...	1.0	1.7	430	.58	32	2.90	.780	34	3

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, Hydrologic Unit 10190005, on right bank 140 ft downstream from bridge on county road, 1.3 mi upstream from mouth, and 4.2 mi northwest of Platteville.

DRAINAGE AREA.--976 mi^2.

PERIOD OF RECORD.--July 1904 to December 1906, April to December 1915, March 1927 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 956: 1938(M). WSP 1440: 1934, 1935(M). WSP 1730: 1958, drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft, from topographic map. See WSP 1730 for history of changes prior to Apr. 25, 1960.

REMARKS.--Records good. Diversions above station for irrigation of about 177,000 acres. Flow partly regulated by many small reservoirs above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--59 years (water years 1905-6, 1928-84), 215 ft^3/s; 155,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s, Sept. 3, 1938, gage height, 8.93 ft, site and datum then in use, from rating curve extended above 4,700 ft^3/s; minimum daily, 12 ft^3/s, Apr. 23, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft^3/s at 0800 May 26, gage height, 4.72 ft; minimum daily, 93 ft^3/s, Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	151	140	130	230	189	239	526	615	522	464	308
2	145	147	170	130	230	193	239	536	857	611	615	340
3	143	138	200	130	230	195	234	572	749	564	488	315
4	136	138	193	140	230	191	230	583	744	470	419	295
5	149	139	187	150	228	175	226	564	607	374	395	273
6	157	138	159	160	226	185	212	572	550	328	368	257
7	141	134	171	170	230	195	219	558	477	305	371	243
8	147	138	181	160	228	198	221	536	434	298	380	268
9	153	173	212	150	223	200	228	530	458	315	371	278
10	161	163	200	140	223	198	264	544	446	371	340	257
11	173	161	191	130	223	202	290	603	437	494	320	248
12	171	175	185	130	212	198	295	700	377	401	300	250
13	173	167	198	120	204	195	270	857	404	335	300	245
14	208	155	193	120	226	193	250	1040	516	332	280	250
15	217	163	189	120	230	193	241	1040	599	342	254	268
16	215	171	175	110	221	200	239	1160	930	345	266	288
17	217	169	153	100	219	187	212	1070	1180	312	288	290
18	208	181	111	100	200	185	250	1040	1120	305	318	273
19	210	215	132	100	189	193	230	995	1000	300	332	252
20	204	195	139	110	195	185	252	920	975	305	330	230
21	219	177	120	110	206	189	340	888	930	530	458	221
22	208	187	100	120	212	198	386	862	893	494	474	221
23	202	171	100	120	204	232	547	767	866	461	502	223
24	165	157	100	130	195	232	785	700	812	464	458	219
25	161	171	110	150	200	241	718	940	708	477	410	241
26	149	171	120	170	200	264	758	1280	564	461	386	257
27	151	93	120	200	198	257	635	1020	512	461	359	257
28	147	95	110	230	193	241	550	794	494	458	330	245
29	153	100	110	230	193	230	530	655	452	505	308	268
30	153	125	120	230	---	226	522	623	419	530	278	268
31	153	---	130	230	---	243	---	572	---	494	280	---
TOTAL	5336	4648	4719	4520	6198	6403	10612	24047	20125	12964	11442	7848
MEAN	172	155	152	146	214	207	354	776	671	418	369	262
MAX	219	215	212	230	230	264	785	1280	1180	611	615	340
MIN	136	93	100	100	189	175	212	526	377	298	254	219
AC-FT	10580	9220	9360	8970	12290	12700	21050	47700	39920	25710	22700	15570

CAL YR 1983 TOTAL 205614 MEAN 563 MAX 2640 MIN 93 AC-FT 407800
WTR YR 1984 TOTAL 118862 MEAN 325 MAX 1280 MIN 93 AC-FT 235800

06733000 BIG THOMPSON RIVER AT ESTES PARK, CO

LOCATION.--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec.30, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank in Estes Park, 600 ft downstream from bridge on State Highways 7 and 66,900 ft downstream from Black Canyon Creek, and 0.3 mi northwest of Estes powerplant. Station is upstream from Lake Estes.

DRAINAGE AREA.--137 mi .

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1947, published as Thompson River at Estes Park.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Datum of gage is 7,492.5 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to May 18, 1949, at site 740 ft downstream at different datum. May 18, 1949, to Mar. 22, 1951, at site 60 ft upstream at datum 1.2 ft, higher.

REMARKS.--Records good except those for winter period, which are fair. Diversion from Colorado River basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947, and ended Aug. 2, 1950. Small power developments and small diversions for irrigation and municipal use above station. Diversions above station from Wind River to Lake Estes (bypassing this station) were 1,420 acre-ft during current year.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--38 years, 127 ft³/s; 92,010 acre-ft/yr, adjusted for inflow from Alva B. Adams tunnel Aug. 10, 1947, to Aug. 2, 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft³/s July 15, 1982, caused by failure of Lawn Lake Dam, gage height, indeterminate. Minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 25	0700	*1,240	6.12	July 1	0200	1,210	6.07
June 1	0500	745	4.91	July 10	0900	878	5.34
June 16	0300	875	5.33	July 24	0730	830	5.19

Minimum daily discharge, 10 ft³/s, Mar. 16, 18, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	33	26	21	14	12	16	39	699	909	383	201
2	45	31	26	20	14	12	15	45	599	709	359	216
3	45	28	25	20	13	12	16	43	544	632	316	168
4	45	28	25	20	14	11	17	41	516	564	288	147
5	45	28	25	20	13	11	18	45	467	527	270	130
6	45	28	25	20	14	12	17	46	441	502	277	118
7	41	27	25	20	13	12	18	43	431	489	275	126
8	40	28	24	20	13	12	18	40	352	500	249	130
9	40	28	24	20	14	12	19	48	311	527	228	121
10	41	33	25	19	14	12	20	70	267	711	203	108
11	45	34	24	19	14	11	26	123	277	529	197	105
12	45	33	24	18	14	11	21	190	353	433	191	108
13	45	31	23	17	15	11	20	285	459	391	206	115
14	45	28	23	17	15	11	21	385	695	425	197	119
15	44	36	23	16	15	11	23	473	735	415	206	113
16	40	34	22	16	15	10	28	529	769	364	207	121
17	40	33	21	15	15	11	33	504	737	342	212	128
18	40	32	19	14	15	10	40	475	635	302	221	112
19	44	35	20	13	15	11	40	377	632	292	216	102
20	40	36	20	12	14	10	38	445	635	316	233	98
21	40	35	19	11	14	10	35	544	574	328	244	98
22	38	32	20	12	14	11	41	577	639	311	233	104
23	37	30	20	13	14	12	40	579	596	396	209	95
24	36	25	21	14	14	13	47	766	594	669	203	88
25	33	26	20	14	14	15	52	1010	570	481	221	97
26	34	28	21	14	13	14	49	621	564	400	194	95
27	33	29	21	14	12	16	39	557	619	364	181	91
28	33	28	22	14	11	17	39	494	603	423	170	86
29	32	28	22	14	12	18	34	496	603	410	155	80
30	33	26	21	14	---	17	32	577	662	437	144	75
31	31	---	21	14	---	16	---	648	---	383	136	---
TOTAL	1241	911	697	505	401	384	872	11115	16578	14481	7024	3495
MEAN	40.0	30.4	22.5	16.3	13.8	12.4	29.1	359	553	467	227	117
MAX	46	36	26	21	15	18	52	1010	769	909	383	216
MIN	31	25	19	11	11	10	15	39	267	292	136	75
AC-FT	2460	1810	1380	1000	795	762	1730	22050	32880	28720	13930	6930

CAL YR 1983 TOTAL 66866 MEAN 183 MAX 1300 MIN 10 AC-FT 132600
WTR YR 1984 TOTAL 57704 MEAN 158 MAX 1010 MIN 10 AC-FT 114500

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 10.

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO

LOCATION.--Lat 40°22'30", long 105°29'13", in SE¼NW¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi east of Estes Park.

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Tunnel is part of Colorado-Big Thompson project. Field data collected prior to 1974 water year available in district office. Records of discharge are estimated values. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 25...	1600	395	38	8.1	9.0	9.6	--	--	14	4.2
NOV 30...	1500	501	40	6.9	2.5	9.3	--	--	16	4.8
DEC 28...	1630	503	51	7.7	1.0	9.4	--	--	20	6.0
JAN 23...	1430	203	52	7.1	2.0	10.2	--	--	21	6.2
FEB 23...	0800	517	53	7.2	2.0	9.2	--	--	22	6.5
MAR 22...	0800	451	58	7.2	3.0	10.0	--	--	21	6.4
MAY 23...	1730	557	30	7.2	10.0	9.4	220	K11	10	2.7
JUN 26...	1200	574	23	7.2	10.5	10.0	780	21	8	2.2
JUL 16...	1830	574	19	7.6	14.0	8.7	1000	K43	6	1.9
AUG 21...	0730	499	33	6.6	15.0	7.4	1300	>60	11	3.3
SEP 24...	1700	359	32	6.3	13.0	8.3	--	--	14	4.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 25...	.91	1.8	.2	.60	17	4.1	.50	.10	4.0	26	.04
NOV 30...	1.0	1.9	.2	.60	19	5.2	.40	.10	4.6	30	.04
DEC 28...	1.2	2.2	.2	.80	22	4.8	.70	.10	4.7	34	.05
JAN 23...	1.3	2.3	.2	.70	24	4.8	.80	.20	4.8	36	.05
FEB 23...	1.3	2.3	.2	.70	25	5.2	.60	.10	5.0	37	.05
MAR 22...	1.2	2.0	.2	.70	24	4.5	.60	.20	4.9	35	.05
MAY 23...	.74	1.5	.2	.60	7.0	8.4	.90	.10	6.4	26	.03
JUN 26...	.50	1.2	.2	.40	7.0	4.4	.60	.10	4.1	18	.02
JUL 16...	.40	1.0	.2	.40	6.0	3.4	.30	.10	3.4	15	.02
AUG 21...	.70	1.6	.2	.60	11	4.4	.60	<.01	4.4	22	.03
SEP 24...	.90	1.7	.2	.80	17	5.0	.60	.10	4.4	28	.04

K BASED ON NON-IDEAL COLONY COUNT.

06734900 OLYMPUS TUNNEL AT LAKE ESTES.CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT 25...	28	<.020	<.100	.030	.020	.020	86	3	--	--
NOV 30...	41	<.010	<.100	.020	<.010	<.010	61	9	--	--
DEC 28...	46	<.010	<.100	.020	<.010	<.010	66	4	--	--
JAN 23...	19	<.010	<.100	.030	.010	<.010	71	4	--	--
FEB 23...	51	<.010	.110	.150	.020	.010	67	6	--	--
MAR 22...	43	<.010	.110	.070	.010	.010	64	6	--	--
MAY 23...	39	<.010	.130	.060	.030	.030	180	19	7.6	4300
JUN 26...	28	<.010	<.100	.080	.040	.010	120	14	24	4600
JUL 16...	23	<.010	<.100	.050	.010	.010	100	13	27	2500
AUG 21...	30	<.010	<.010	.090	.030	.010	180	18	92	3700
SEP 24...	27	<.010	<.100	.040	.020	.010	130	2	3.7	3100

06735500 BIG THOMPSON RIVER NEAR ESTES PARK, CO

LOCATION.--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank 100 ft upstream from Dry Gulch, 600 ft downstream from Olympus Dam, and 2.0 mi east of Estes Park.

DRAINAGE AREA.--155 mi². Area at site used Jan. 29, 1934, to Mar. 21, 1951, 162 mi².

PERIOD OF RECORD.--July 1930 to current year. Prior to October 1933, monthly discharges only, published in WSP 1310. Published as Thompson River near Estes Park 1934-47.

REVISED RECORDS.--WDR CO-76-1: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,422.5 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Jan. 29, 1934, nonrecording gage on highway bridge 1.5 mi downstream at different datum. Jan. 29, 1934, to Mar. 21, 1951, water-stage recorder at site 0.4 mi downstream at datum 10.5 ft, lower.

REMARKS.--Records excellent. Low flow regulated by Lake Estes since Nov. 30, 1948. Diversion from Colorado River basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see station 09013000 in Volume 2 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Since May 17, 1955, part of the natural flow of Big Thompson River (45,620 during current year) has also been diverted through Olympus tunnel and returned to the river below the station at mouth of canyon, near Drake. Small power developments and small diversions for irrigation and municipal use above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,800 ft³/s, June 20, 1933, gage height, 4.0 ft, site and datum then in use, from rating curve extended above 460 ft³/s; no flow, Aug. 1 to Sept. 30, 1976 (all flow into Lake Estes diverted through Olympus tunnel after flood of July 31, 1976).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 981 ft³/s at 1200 July 1, gage height, 5.62 ft; minimum daily, 10 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	28	30	22	12	11	10	43	114	811	391	75
2	43	28	26	22	13	12	11	48	161	726	387	75
3	43	27	26	22	14	11	11	83	99	614	559	75
4	40	28	25	22	14	12	11	80	105	533	334	75
5	44	28	25	22	13	12	12	78	145	500	288	74
6	39	27	26	20	13	11	14	84	100	498	224	74
7	40	26	25	20	13	12	14	83	100	451	277	75
8	39	26	26	20	14	12	12	80	100	510	275	75
9	36	28	25	20	14	12	14	77	100	546	250	74
10	36	26	24	20	14	12	12	85	99	610	232	75
11	35	31	26	20	14	12	12	62	100	747	213	74
12	41	33	25	20	14	12	12	50	100	433	195	75
13	42	33	25	20	14	11	12	50	198	334	192	74
14	42	29	24	20	14	11	11	52	396	292	206	75
15	41	26	24	20	14	10	11	99	657	299	126	74
16	41	33	22	20	14	10	10	98	596	297	100	50
17	39	30	22	20	15	11	11	100	459	263	101	50
18	38	31	22	20	14	11	13	93	201	192	99	50
19	38	32	22	20	14	11	24	50	148	125	100	51
20	40	35	22	20	14	11	43	50	119	125	100	50
21	37	35	22	20	14	10	41	55	100	398	101	52
22	36	23	22	20	14	10	39	101	101	238	99	49
23	36	19	22	20	14	10	47	101	200	293	99	50
24	33	20	23	20	13	10	45	194	152	755	101	51
25	31	22	22	19	13	11	55	544	124	533	100	50
26	35	24	22	18	13	11	64	235	249	383	100	49
27	124	25	22	12	13	11	59	100	342	305	100	49
28	40	27	22	12	11	11	51	100	465	272	101	50
29	40	28	22	13	11	10	48	100	555	471	99	50
30	30	28	22	12	---	12	47	100	581	514	100	50
31	29	---	22	12	---	10	---	101	---	443	100	---
TOTAL	1272	836	735	588	391	343	776	3176	6966	13511	5749	1870
MEAN	41.0	27.9	23.7	19.0	13.5	11.1	25.9	102	232	436	185	62.3
MAX	124	35	30	22	15	12	64	544	657	811	559	75
MIN	29	19	22	12	11	10	10	43	99	125	99	49
AC-FT	2520	1660	1460	1170	776	680	1540	6300	13820	26800	11400	3710

CAL YR 1983 TOTAL 60762.1 MEAN 166 MAX 1010 MIN 8.9 AC-FT 120500
WTR YR 1984 TOTAL 36213.0 MEAN 98.9 MAX 811 MIN 10 AC-FT 71830

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO

LOCATION.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on right bank near abutment of Horsetooth Dam on tributaries to Cache la Poudre River, 4.8 mi west of city hall in Fort Collins. Water-quality sampling at three sites in reservoir.

WATER-CONTENTS RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 10 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dike and dams closing openings in subsequent valleys between hogbacks; storage began Jan. 10, 1951; dams completed July 21, 1949. Usable capacity, 143,500 acre-ft above elevations 5,320 ft, invert of channel from Spring Canyon Dam, 5,310 ft, invert of channel from Dixon Canyon Dam, 5,270 ft, trashrack sill of outlet at Soldier Canyon Dam, and below maximum water-surface elevation, 5,430 ft, 6 ft below crest of Satanka Dike. Dead storage, 8,270 acre-ft. Figures given represent usable contents. Water is diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 141,600 acre-ft July 2, 1970, elevation, 5,429.02 ft; minimum observed, 9 acre-ft Nov. 16-30, 1977, elevation, 5,270.25 ft; no storage prior to Apr. 18, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 137,600 acre-ft June 18, elevation, 5,426.88 ft; minimum, observed, 65,940 acre-ft Sept. 30, elevation, 5,381.02 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,405.66	101,300	-
Oct. 31	5,405.14	100,500	-800
Nov. 30	5,406.98	103,400	+2,900
Dec. 31	5,412.55	112,500	+9,100
CAL YR 1983			+26,480
Jan. 31	5,414.36	115,500	+3,000
Feb. 29	5,418.06	121,800	+6,300
Mar. 31	5,424.08	132,500	+10,700
Apr. 30	5,425.76	135,600	+3,100
May 31	5,425.38	134,900	-700
June 30	5,425.20	134,500	-400
July 31	5,398.98	91,000	-43,500
Aug. 31	5,385.70	72,110	-18,890
Sept. 30	5,381.02	65,940	-6,170
WTR YR 1984			-35,360

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

REMARKS.--Samples collected at various depths near north end of reservoir near Soldier Canyon Dam. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
APR						
17...	1100	.10	88	7.4	7.0	10.7
17...	1106	5.00	88	7.4	6.5	10.8
17...	1107	10.0	88	7.4	6.0	10.8
17...	1108	20.0	88	7.3	5.5	10.7
17...	1109	25.0	88	7.4	5.5	10.6
17...	1110	30.0	87	7.1	5.5	10.6
17...	1111	40.0	87	6.9	5.0	10.6
17...	1112	50.0	87	7.0	5.0	10.6
17...	1113	60.0	87	7.1	5.0	10.5
17...	1114	70.0	86	7.1	5.0	10.4
17...	1115	75.0	86	7.1	5.0	10.4
17...	1116	80.0	86	7.1	5.0	10.3
17...	1117	90.0	86	7.1	5.0	10.3
17...	1118	100	88	7.1	5.0	10.4
17...	1119	110	88	7.1	5.0	10.3
17...	1120	120	88	7.3	5.0	10.3
17...	1121	125	88	7.3	5.0	10.4
17...	1122	130	88	7.3	5.0	10.2
17...	1123	140	88	7.4	5.0	10.3
17...	1124	150	88	7.5	5.0	10.3
JUL						
11...	1100	.10	72	7.4	21.5	7.2
11...	1101	5.00	73	7.4	21.0	7.3
11...	1102	10.0	72	7.4	20.5	7.3
11...	1103	20.0	72	7.4	20.0	7.0
11...	1104	25.0	69	7.4	18.0	7.0
11...	1105	30.0	69	7.5	15.0	7.1
11...	1106	40.0	68	7.5	11.5	7.5
11...	1107	50.0	70	7.4	9.5	8.0
11...	1108	60.0	69	7.4	8.5	8.1
11...	1109	70.0	70	7.5	8.0	8.1
11...	1110	75.0	69	7.5	7.5	8.0
11...	1111	80.0	70	7.4	7.5	8.1
11...	1112	90.0	69	7.4	7.5	8.1
11...	1113	100	70	7.4	7.0	8.2
11...	1114	110	70	7.4	7.0	8.2
11...	1115	120	69	7.5	7.0	8.1
11...	1116	125	70	7.4	7.0	8.1
11...	1117	130	70	7.3	7.0	8.0
11...	1118	140	70	7.2	6.5	8.0
11...	1119	150	70	7.2	6.5	8.0
SEP						
11...	1115	.10	71	7.4	19.5	6.6
11...	1116	5.00	71	7.4	19.5	6.6
11...	1117	10.0	7	7.4	19.5	6.6
11...	1118	20.0	70	7.4	19.5	6.6
11...	1119	25.0	70	7.4	19.0	6.5
11...	1120	30.0	70	7.4	19.0	6.3
11...	1121	40.0	69	7.4	18.5	6.0
11...	1122	50.0	65	7.3	17.5	5.1
11...	1123	60.0	68	7.2	16.0	5.2
11...	1124	70.0	69	7.2	14.0	5.5
11...	1125	75.0	69	7.2	13.5	5.6
11...	1126	80.0	69	7.1	12.0	5.7
11...	1127	90.0	71	7.1	10.5	5.9
11...	1128	100	71	7.1	10.0	6.0
11...	1129	110	71	7.1	8.5	5.8
11...	1130	120	71	7.1	8.5	5.7
11...	1131	125	71	7.1	8.5	5.7

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
APR											
17...	1100	.10	76	80	--	--	28	8.7	1.5	2.6	.2
17...	1124	150	75	--	--	--	29	8.8	1.6	--	--
JUL											
11...	1100	.10	75	61	K5	K2	30	9.4	1.6	2.3	.2
11...	1105	30.0	70	--	--	--	27	8.5	1.4	2.2	.2
11...	1119	150	73	--	--	--	29	9.2	1.5	2.3	.2
SEP											
11...	1115	.10	73	41	--	--	30	9.6	1.5	2.2	.2
11...	1131	125	74	--	--	--	30	9.5	1.6	--	--

K BASED ON NON-IDEAL COLONY COUNT.

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)
APR										
17...	.90	29	5.9	.90	.10	3.9	--	42	.06	4
17...	--	29	--	--	.10	4.0	--	--	--	3
JUL										
11...	.80	31	5.1	.80	.20	3.6	50	42	.07	[illegible]
11...	.80	26	5.6	.80	.20	3.7	--	39	.05	<2
11...	.80	28	5.4	.70	.10	4.1	43	41	.06	<2
SEP										
11...	1.0	28	4.3	.60	.10	4.1	--	40	.05	25
11...	--	28	--	--	.10	4.5	--	--	--	22

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTENTIAL (MG/L)
APR										
17...	<.010	.11	--	.040	--	.50	--	.010	--	--
17...	<.010	--	--	<.010	--	.20	--	<.010	--	--
JUL										
11...	--	<.10	.050	<.010	.25	.30	.020	<.010	10720	1.3
11...	<.010	<.10	--	.030	--	.30	--	<.010	--	--
11...	--	.14	.040	.020	.16	.20	<.010	<.010	--	--
SEP										
11...	<.010	.16	--	.020	--	.20	--	<.010	--	--
11...	<.010	--	--	.010	--	.20	--	.010	--	--

DATE	TIME	SAMPLING DEPTH (FEET)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
APR								
17...	1100	.10	300	--	--	8	190	53
17...	1124	150	340	--	--	7	170	51
JUL								
11...	1100	.10	400	--	--	6	360	32
11...	1105	30.0	310	--	--	7	270	30
11...	1119	150	--	<1	<1	7	260	42
SEP								
11...	1115	.10	880	--	--	6	480	7
11...	1131	125	230	--	--	6	310	72

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC. TOTAL RECOV- ERABLE (UG/L AS ZN)
APR							
17...	4	<10	2	--	--	--	<10
17...	4	<10	1	--	--	--	160
JUL							
11...	1	20	3	<.1	--	--	20
11...	<1	20	3	<.1	--	--	20
11...	6	<10	1	<.1	9	<1	20
SEP							
11...	3	<10	<1	.1	--	--	20
11...	3	10	3	<.1	--	--	20

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to September 1984.

REMARKS.--Samples collected at various depths near south end of reservoir, near Spring Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
APR						
17...	1435	.10	88	7.6	6.0	11.0
17...	1436	5.00	87	7.8	6.0	11.0
17...	1437	10.0	87	7.7	5.5	11.0
17...	1438	20.0	87	7.7	5.5	11.0
17...	1439	25.0	87	7.6	5.5	11.0
17...	1440	30.0	87	7.5	5.0	10.9
17...	1441	40.0	87	7.4	5.0	10.9
17...	1442	50.0	87	7.5	5.0	10.9
17...	1443	60.0	87	7.5	5.0	10.9
17...	1444	70.0	87	7.3	5.0	10.8
17...	1445	75.0	88	7.5	5.0	10.8
17...	1446	80.0	88	7.4	5.0	10.8
17...	1447	90.0	88	7.3	5.0	10.8
17...	1448	100	88	7.4	5.0	10.8
17...	1449	110	88	7.5	5.0	10.8
17...	1450	120	88	7.5	5.0	10.8
17...	1451	125	88	7.6	5.0	10.8
17...	1452	130	88	7.6	5.0	10.8
17...	1453	140	88	7.5	5.0	10.8
17...	1454	150	88	7.5	5.0	10.8
JUL						
11...	1530	.10	76	7.6	24.0	7.1
11...	1531	5.00	76	7.6	22.0	7.4
11...	1532	10.0	75	7.6	21.0	7.3
11...	1533	20.0	74	7.7	20.0	7.0
11...	1534	25.0	66	7.7	17.0	7.1
11...	1535	30.0	68	7.5	14.5	7.2
11...	1536	40.0	71	7.5	11.5	7.4
11...	1537	50.0	72	7.4	9.5	8.0
11...	1538	60.0	72	7.4	8.0	8.1
11...	1539	70.0	73	7.3	7.5	8.2
11...	1540	75.0	73	7.3	7.5	8.1
11...	1541	80.0	73	7.3	7.5	8.1
11...	1542	90.0	73	7.2	7.5	8.1
11...	1543	100	73	7.2	7.0	8.0
11...	1544	110	71	7.2	7.0	8.0
11...	1545	120	73	7.2	7.0	8.0
11...	1546	125	73	7.1	7.0	7.8
11...	1547	130	72	7.2	7.0	7.8
11...	1548	140	73	7.2	7.0	7.7
11...	1549	150	74	7.0	7.0	7.6
SEP						
11...	1530	.10	71	7.4	19.5	7.1
11...	1531	5.00	71	7.4	19.5	7.0
11...	1532	10.0	71	7.4	11.0	7.0
11...	1533	20.0	71	7.5	19.0	7.0
11...	1534	25.0	71	7.5	19.0	7.0
11...	1535	30.0	71	7.5	19.0	6.9
11...	1536	40.0	63	7.6	18.5	7.0
11...	1537	50.0	59	7.6	17.5	6.8
11...	1538	60.0	66	7.3	14.5	5.2
11...	1539	70.0	73	7.3	8.0	6.4
11...	1540	75.0	72	7.2	7.5	6.2
11...	1541	80.0	72	7.2	7.5	6.2
11...	1542	90.0	73	7.2	7.5	5.3
11...	1543	100	75	7.1	7.0	4.6
11...	1544	110	76	7.1	7.0	3.8
11...	1545	120	77	7.1	7.0	3.2

403147105083800 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR								
17...	1435	.10	69	--	--	28	8.6	1.5
17...	1439	25.0	--	--	--	28	8.7	1.6
17...	1454	150	--	--	--	28	8.6	1.5
JUL								
11...	1530	.10	36	K2	K2	32	10	1.6
11...	1535	30.0	--	--	--	27	8.6	1.4
11...	1549	150	--	--	--	29	9.0	1.5
SEP								
11...	1530	.10	39	--	--	--	--	--
11...	1538	60.0	--	--	--	28	8.8	1.5
11...	1545	120	--	--	--	35	11	1.8

K BASED ON NON-IDEAL COLONY COUNT.

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
APR									
17...	2.4	.2	.70	29	.10	4.0	--	.06	<2
17...	--	--	--	28	.20	4.2	--	--	--
17...	--	--	--	28	.10	4.0	--	--	--
JUL									
11...	--	--	--	31	.20	3.7	42	.06	<2
11...	--	--	--	26	.20	3.9	--	--	<2
11...	--	--	--	28	.20	3.9	48	.07	<2
SEP									
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	25	.10	4.5	--	--	--
11...	--	--	--	32	.20	5.1	--	--	34

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTEN-TIAL (MG/L)
APR									
17...	<.010	.11	--	.030	.40	--	.010	--	--
17...	<.010	--	--	.090	.20	--	.020	--	--
17...	<.010	--	--	.020	.30	--	.010	--	--
JUL									
11...	--	<.10	.050	.020	.30	.010	<.010	14540	1.3
11...	<.010	--	--	.030	.30	--	.010	--	--
11...	--	.15	.040	.020	.40	.020	<.010	--	--
SEP									
11...	--	--	--	--	--	--	--	--	--
11...	<.010	--	--	.020	.90	--	<.010	--	--
11...	<.010	--	--	.050	.40	--	.010	--	--

DATE	TIME	SAM-PLING DEPTH (FEET)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
APR								
17...	1435	.10	300	--	--	9	200	45
17...	1454	150	340	--	--	8	200	54
JUL								
11...	1530	.10	700	--	--	8	570	50
11...	1535	30.0	370	--	--	8	290	45
11...	1549	150	--	<1	1	7	340	47
SEP								
11...	1545	120	2500	--	--	14	2200	67

403147105083900 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR							
17...	3	<10	2	--	--	--	80
17...	3	<10	2	--	--	--	20
JUL							
11...	<1	30	4	<.1	--	--	20
11...	<1	20	4	<.1	--	--	10
11...	<1	30	4	<.1	9	<1	10
SEP							
11...	2	130	91	<.1	--	--	10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET)	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
JUL										
11...	1530	.10	<.1	<.10	<.010	<.1	<.010	<.010	<.010	<.01

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)
JUL										
11...	<.010	<.010	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01

DATE	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL										
11...	<.01	<.01	<.01	<.1	<1	<.01	.01	<.01	<.01	<.01

403317105090000 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to September 1984.

REMARKS.--Samples collected at various depths near center of reservoir, near Dixon Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
APR						
17...	1300	.10	88	7.6	7.0	10.6
17...	1301	5.00	88	7.6	7.0	10.7
17...	1302	10.0	88	7.8	6.0	10.7
17...	1303	20.0	88	7.6	5.5	10.7
17...	1304	25.0	88	7.5	5.0	10.6
17...	1305	30.0	87	7.4	5.0	10.6
17...	1306	40.0	87	7.4	5.0	10.5
17...	1307	50.0	87	7.5	5.0	10.5
17...	1308	60.0	87	7.5	5.0	10.5
17...	1309	70.0	87	7.6	5.0	10.4
17...	1310	75.0	87	7.5	5.0	10.4
17...	1311	80.0	87	7.5	5.0	10.4
17...	1312	90.0	87	7.5	5.0	10.4
17...	1313	100	87	7.5	5.0	10.4
17...	1314	110	88	7.6	5.0	10.4
17...	1315	120	88	7.6	5.0	10.4
17...	1316	125	88	7.6	5.0	10.4
17...	1317	130	87	7.6	5.0	10.4
17...	1318	140	87	7.6	5.0	10.4
17...	1319	150	78	7.7	5.0	10.4
JUL						
11...	1315	.10	72	7.8	22.0	7.4
11...	1316	5.00	72	7.7	21.0	7.4
11...	1317	10.0	72	7.5	21.0	7.3
11...	1318	20.0	72	7.6	20.5	7.2
11...	1319	25.0	71	7.8	18.5	7.0
11...	1320	30.0	66	7.4	16.0	7.1
11...	1321	40.0	68	7.3	11.0	7.7
11...	1322	50.0	70	7.3	9.0	8.0
11...	1323	60.0	71	7.4	8.0	8.2
11...	1324	70.0	71	7.5	8.0	8.2
11...	1325	80.0	70	7.7	7.5	8.2
11...	1326	90.0	70	7.5	7.5	8.2
11...	1327	100	70	7.4	7.0	8.1
11...	1328	110	71	7.4	7.0	8.1
11...	1329	120	71	7.5	7.0	8.1
11...	1330	125	71	7.4	7.0	8.1
11...	1331	130	71	7.4	7.0	8.1
11...	1332	140	68	7.4	7.0	8.1
11...	1333	150	69	7.4	7.0	8.1
SEP						
11...	1350	.10	71	7.5	19.5	6.7
11...	1351	5.00	71	7.5	19.5	6.7
11...	1352	10.0	71	7.6	19.5	6.7
11...	1353	20.0	71	7.6	19.5	6.7
11...	1354	25.0	70	7.6	19.5	6.7
11...	1355	30.0	71	7.6	19.5	6.7
11...	1356	40.0	68	7.6	18.5	6.4
11...	1357	50.0	65	7.6	17.5	6.0
11...	1358	60.0	66	7.4	15.5	5.4
11...	1359	70.0	72	7.4	8.5	6.5
11...	1400	75.0	71	7.4	8.0	6.7
11...	1401	80.0	70	7.4	7.5	6.8
11...	1402	90.0	71	7.4	7.5	6.6
11...	1403	100	72	7.4	7.5	6.3
11...	1404	110	72	7.4	7.0	5.8
11...	1405	120	73	7.3	7.0	5.4
11...	1406	125	74	7.3	7.0	5.2
11...	1407	130	74	7.2	7.0	5.1

403317105090000 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM- PLING DEPTH (FEET)	TRANS- PAR- ENCY (SECCHI DISK) (IN)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
APR										
17...	1300	.10	84	<1	<1	28	8.6	1.5	2.4	.2
17...	1319	150	--	--	--	28	8.7	1.6	--	--
JUL										
11...	1315	.10	52	K7	K4	30	9.5	1.6	--	--
11...	1320	30.0	--	--	--	28	8.6	1.5	--	--
11...	1333	150	--	--	--	29	9.0	1.5	--	--
SEP										
11...	1350	.10	41	<2	<1	31	9.8	1.5	--	--
11...	1407	130	--	--	--	32	10	1.8	--	--

K BASED ON NON-IDEAL COLONY COUNT.

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)
APR										
17...	.80	29	5.6	.80	.10	4.1	46	41	.06	10
17...	--	29	--	--	.20	4.0	--	--	--	--
JUL										
11...	--	29	--	--	.20	3.6	47	--	.06	6
11...	--	26	--	--	.20	3.8	--	--	--	<2
11...	--	28	--	--	.20	3.9	50	--	.07	<2
SEP										
11...	--	29	--	--	.20	4.6	63	--	.09	21
11...	--	30	--	--	.10	4.8	--	--	--	20

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTEN- TIAL (MG/L)
APR										
17...	--	.10	.090	.030	.11	.20	.010	.010	9400	370
17...	<.010	--	--	.020	--	.20	--	.010	--	--
JUL										
11...	--	<.10	.030	<.010	.27	.30	.010	<.010	11350	2.0
11...	<.010	--	--	.050	--	.40	--	<.010	--	--
11...	--	.14	.030	.020	.27	.30	<.010	<.010	--	--
SEP										
11...	<.010	.17	.040	.030	.86	.90	.020	<.010	16790	3.2
11...	<.010	--	--	.010	--	.20	--	.010	--	--

DATE	TIME	SAM- PLING DEPTH (FEET)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
APR								
17...	1300	.10	310	--	--	8	200	71
17...	1319	150	310	--	--	9	230	62
JUL								
11...	1315	.10	390	--	--	5	350	41
11...	1320	30.0	410	--	--	9	310	41
11...	1333	150	--	<1	1	7	240	39
SEP								
11...	1350	.10	770	--	--	5	470	110
11...	1407	130	450	--	--	7	320	53

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403317105090000 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR							
17...	2	<10	3	--	--	--	10
17...	4	<10	13	--	--	--	30
JUL							
11...	1	20	3	<.1	--	--	20
11...	<1	30	3	<.1	--	--	10
11...	<1	<10	2	<.1	8	<1	<10
SEP							
11...	3	10	4	<.1	--	--	10
11...	<1	10	2	<.1	--	--	10

06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO

LOCATION.--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec.3, T.5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam, and 6.0 mi east of Drake.

DRAINAGE AREA.--305 mi².

PERIOD OF RECORD.--August 1887 to September 1892, May 1895 to September 1903, October 1926 to September 1933 (no winter records prior to October 1932, except water years 1927-28), April 1938 to September 1949, March 1951 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as Big Thompson Creek at Arkins 1887-92, Big Thompson Creek near Arkins 1901-3, and as Thompson River at mouth of canyon, near Drake 1927-30, 1938-47.

REVISED RECORDS.--WSP 1310: 1891, 1927. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,305.47 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Oct. 1, 1949, to Sept. 18, 1977, at present site, datum 8.00 ft lower, Sept. 19, 1977, to July 27, 1980, at present site, datum 7.37 ft lower. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1949.

REMARKS.--Records good except those for winter period and those for period of no gage height record, which are poor. Diversions above station for irrigation. Diversions from Colorado River basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see station 09013000 in Volume 2 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Part of the natural flow of the Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955, 45,620 acre-ft diverted during current year, and Dille tunnel since Apr. 20, 1959, 19,250 acre-ft diverted during current year, and returned to the river just below this station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s, July 31, 1976, gage height, 19.86 ft, from floodmarks, from slope-area measurements of peak flow; no flow at times in 1976 (all flow above station diverted through Olympus and Dille tunnels after flood of July 31, 1976), 1979-80 (all flow above station diverted through Dille tunnel).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s at 0330 July 2, gage height, 4.11 ft; minimum daily, 9.0 ft³/s, Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	45	44	33	20	22	25	105	280	816	147	69
2	71	43	41	34	22	23	25	124	330	872	145	77
3	71	41	39	32	24	22	22	154	270	800	229	78
4	66	43	39	33	24	22	23	208	257	708	147	83
5	67	43	38	33	23	21	25	212	285	671	156	84
6	62	43	38	32	24	24	24	218	222	671	167	109
7	57	43	38	31	23	25	25	212	189	629	180	122
8	66	49	36	32	24	25	26	136	161	664	162	122
9	62	40	36	31	24	26	27	130	143	692	151	118
10	62	44	36	30	25	23	27	228	131	808	149	122
11	60	49	37	31	24	25	27	177	131	929	154	122
12	62	50	39	31	24	18	25	91	130	636	155	118
13	69	50	38	30	25	9.0	26	115	167	520	155	120
14	67	48	35	30	24	16	25	124	329	466	154	122
15	66	43	35	29	25	27	25	267	409	272	163	118
16	64	49	33	30	27	25	26	270	351	167	173	100
17	62	49	32	29	29	22	31	305	318	144	164	89
18	60	50	34	27	28	26	38	300	215	154	161	84
19	59	47	31	29	28	26	46	280	251	178	157	84
20	63	43	30	28	26	25	64	270	252	193	175	86
21	60	45	32	30	27	25	78	248	215	424	168	83
22	59	25	31	30	27	26	96	257	208	380	145	84
23	59	12	31	30	26	24	118	303	295	266	111	81
24	56	12	30	30	24	22	131	375	285	556	107	81
25	50	45	32	30	25	26	149	888	248	544	111	84
26	49	30	32	28	22	24	159	639	335	454	105	83
27	118	30	31	22	21	25	136	342	424	360	102	81
28	83	30	30	23	20	21	127	313	526	330	99	81
29	66	32	32	23	21	23	122	295	615	345	93	78
30	56	25	33	21	---	19	107	266	715	259	93	78
31	52	---	35	20	---	23	---	275	---	170	93	---
TOTAL	1999	1198	1078	902	706	710.0	1805	8127	8687	15078	4471	2841
MEAN	64.5	39.9	34.8	29.1	24.3	22.9	60.2	262	290	486	144	94.7
MAX	118	50	44	34	29	27	159	888	715	929	229	122
MIN	49	12	30	20	20	9.0	22	91	130	144	93	69
AC-FT	3970	2380	2140	1790	1400	1410	3580	16120	17230	29910	8870	5640

CAL YR 1983 TOTAL 80880.0 MEAN 222 MAX 1950 MIN 12 AC-FT 160400
WTR YR 1984 TOTAL 47602.0 MEAN 130 MAX 929 MIN 9.0 AC-FT 94420

NOTE.-NO GAGE-HEIGHT RECORD DEC. 2 TO FEB. 17.

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°24'02", long 105°07'20", in SW¼NE¼ sec.16, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, at Wilson Avenue bridge 9 mi upstream from Greeley-Loveland Ditch and 2.5 mi west of Loveland.

DRAINAGE AREA.--525 mi², approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 25...	1430	327	80	7.4	10.5	9.9	30	9.1
DEC 01...	1030	4.5	1100	7.8	.0	11.5	580	160
29...	1030	34	350	7.7	.0	12.0	160	49
JAN 24...	0930	32	380	7.9	.0	14.2	170	49
FEB 23...	1030	19	400	8.0	3.0	13.2	180	53
MAR 22...	1100	12	790	8.1	5.5	10.9	410	120
APR 18...	1430	29	540	8.5	10.0	12.2	300	82
MAY 24...	1030	450	62	7.4	11.0	9.3	23	6.6
JUN 25...	1430	377	90	7.4	13.0	10.6	34	10
JUL 17...	1030	218	270	8.0	17.0	9.8	120	32
AUG 21...	1100	251	120	7.0	17.0	9.0	49	14
SEP 25...	1000	43	410	7.4	9.0	10.8	180	54

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 25...	1.8	2.6	.2	.70	27	11	1.0	.20	4.3
DEC 01...	44	36	.7	2.7	167	440	16	.40	8.8
29...	9.9	--	--	--	76	--	--	.20	8.7
JAN 24...	11	--	--	--	80	--	--	.30	8.4
FEB 23...	12	--	--	--	78	--	--	.30	7.1
MAR 22...	26	--	--	--	127	--	--	.40	7.3
APR 18...	24	--	--	--	136	--	--	.40	6.7
MAY 24...	1.6	2.6	.2	.90	19	15	1.1	.20	8.5
JUN 25...	2.2	2.7	.2	.60	26	17	.90	.20	2.1
JUL 17...	9.1	--	--	--	51	--	--	.20	3.8
AUG 21...	3.3	3.5	.2	.80	28	22	1.1	.10	5.9
SEP 25...	12	--	--	--	82	--	--	.30	7.6

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT									
25...	47	.06	42	<.020	<.100	.040	.90	.030	--
DEC									
01...	810	1.1	9.8	<.010	1.00	.030	.90	.010	--
29...	--	--	--	<.010	--	.010	.20	.010	--
JAN									
24...	--	--	--	<.010	--	<.010	.30	.040	--
FEB									
23...	--	--	--	<.010	--	.080	1.0	.020	<.01
MAR									
22...	--	--	--	.010	--	.060	.40	.030	--
APR									
18...	--	--	--	<.010	--	.070	.50	.020	--
MAY									
24...	48	.07	59	<.010	.130	.130	.80	.010	<.01
JUN									
25...	52	.07	53	<.010	.160	.180	.30	.010	--
JUL									
17...	--	--	--	<.010	--	.040	.40	<.010	--
AUG									
21...	68	.09	46	<.010	.130	<.010	--	.010	<.01
SEP									
25...	--	--	--	<.010	--	.010	.20	<.010	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT								
25...	1430	100	--	<1	3	7	--	82
DEC								
01...	1030	--	<1	<1	10	8	90	24
29...	1030	70	--	1	4	3	--	29
JAN								
24...	0930	90	--	<1	1	2	--	26
FEB								
23...	1030	--	<1	<1	3	2	80	18
MAR								
22...	1100	50	--	<1	3	62	--	28
APR								
18...	1430	140	--	<1	2	4	--	33
MAY								
24...	1030	--	<1	<1	5	9	1900	160
JUN								
25...	1430	440	--	<1	4	8	--	93
JUL								
17...	1030	1900	--	<1	6	6	--	48
AUG								
21...	1100	--	<1	<1	11	4	790	79
SEP								
25...	1000	230	--	1	<1	3	--	42

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
25...	4	--	9	--	--	--	90
DEC							
01...	<1	110	90	.2	6	17	30
29...	2	--	11	--	--	--	10
JAN							
24...	3	--	12	--	--	--	10
FEB							
23...	7	30	25	<.1	2	6	20
MAR							
22...	4	--	100	--	--	--	30
APR							
18...	<1	--	37	-	--	--	20
MAY							
24...	4	60	7	<.1	8	<1	20
JUN							
25...	<1	--	8	--	--	--	30
JUL							
17...	3	--	7	--	--	--	30
AUG							
21...	1	50	<1	<.1	33	<1	10
SEP							
25...	<1	--	23	--	--	--	<10

06741510 BIG THOMPSON RIVER AT LOVELAND, CO

LOCATION.--Lat 40°22'43", long 105°03'38", in SE¼SE¼ sec.24, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, on right bank 690 ft downstream from county road bridge C-13, 1.7 mi south of sugar refinery in Loveland, and 1.9 mi from Farmers Ditch diversion.

DRAINAGE AREA.--535 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,906 ft, from topographic map.

REMARKS.--Records good except those for period of no gage height record, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--City of Loveland.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft³/s, Apr. 30, 1980, gage height, 10.10 ft, from highwater mark; minimum daily, 0.80 ft³/s, May 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 985 ft³/s at 2400 May 16, gage height, 5.43 ft; minimum daily, 2.8 ft³/s, Dec. 7, 10, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	18	7.4	36	20	30	9.9	4.2	227	386	115	72
2	4.6	17	3.7	34	20	33	10	4.2	293	481	107	79
3	4.2	16	3.4	32	20	35	9.9	31	302	444	93	74
4	7.8	11	3.2	31	20	32	9.4	49	257	315	53	67
5	8.8	11	3.4	29	20	29	8.8	55	305	251	85	59
6	11	9.9	5.2	28	20	32	15	59	166	198	125	48
7	20	9.4	2.8	27	20	30	17	156	158	173	88	45
8	11	7.4	3.2	25	20	31	16	271	153	157	74	48
9	9.9	6.6	3.0	24	20	36	17	276	130	148	64	54
10	9.4	5.8	2.8	23	20	28	18	305	81	196	65	61
11	12	6.2	3.0	22	20	36	18	338	68	250	63	67
12	12	6.6	3.0	21	20	33	18	473	61	179	57	49
13	7.8	6.6	3.0	20	20	18	18	784	101	157	55	31
14	14	7.0	2.8	20	20	19	18	748	300	162	59	34
15	12	7.4	2.8	20	20	39	18	844	374	136	70	37
16	11	7.0	4.6	20	20	38	20	882	352	123	83	36
17	12	6.6	5.2	20	20	32	20	836	383	112	89	28
18	12	7.0	5.2	20	20	36	27	586	325	83	104	40
19	13	5.2	7.0	20	20	28	28	515	502	74	99	44
20	14	5.2	8.0	20	20	32	87	483	547	83	101	23
21	12	5.2	9.8	20	20	25	123	419	492	101	92	24
22	10	4.8	12	20	20	12	70	672	400	63	88	24
23	9.4	5.5	14	20	20	13	9.9	669	358	119	85	19
24	11	7.0	16	20	21	9.9	8.8	411	328	262	64	22
25	223	4.6	19	20	22	7.8	21	651	238	239	53	28
26	467	4.8	23	20	24	8.3	68	543	143	176	67	30
27	483	7.4	27	20	26	7.8	26	330	102	138	83	32
28	264	4.6	33	20	28	8.3	15	325	162	102	79	38
29	34	4.2	39	20	28	8.8	9.4	231	182	115	74	49
30	35	5.5	40	20	---	12	4.2	155	257	114	59	52
31	33	---	38	20	---	15	---	180	---	142	65	---
TOTAL	1793.1	230.5	353.5	712	609	755.9	758.3	12285.4	7747	5679	2458	1314
MEAN	57.8	7.68	11.4	23.0	21.0	24.4	25.3	396	258	183	79.3	43.8
MAX	483	18	40	36	28	39	123	882	547	481	125	79
MIN	4.2	4.2	2.8	20	20	7.8	4.2	4.2	61	63	53	19
AC-FT	3560	457	701	1410	1210	1500	1500	24370	15370	11260	4880	2610

CAL YR 1983 TOTAL 80970.1 MEAN 222 MAX 2070 MIN 2.0 AC-FT 160600
WTR YR 1984 TOTAL 34695.7 MEAN 94.8 MAX 882 MIN 2.8 AC-FT 68820

NOTE.--NO GAGE-HEIGHT RECORD DEC. 20 TO MAR. 1.

BEST COPY AVAILABLE

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT								
25...	1200	327	85	7.4	10.0	10.0	32	9.5
DEC								
01...	1300	9.2	1350	8.0	.0	16.2	670	170
29...	1430	39	450	7.7	.0	12.4	210	58
JAN								
24...	1100	35	500	7.6	.0	14.2	220	60
FEB								
23...	1230	20	480	8.2	4.0	13.8	220	60
MAR								
22...	1230	13	740	8.1	5.0	13.6	340	91
APR								
18...	1200	26	600	8.2	10.0	10.2	170	33
MAY								
24...	1400	282	105	7.4	13.0	9.4	36	10
JUN								
25...	1200	194	138	7.5	13.0	10.6	51	14
JUL								
17...	1300	115	650	8.0	22.0	11.0	270	60
AUG								
21...	1300	92	440	8.2	20.0	10.0	180	46
SEP								
25...	1200	35	625	7.6	9.0	12.2	270	71

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT									
25...	1.9	2.8	.2	.80	28	13	1.1	.20	4.3
DEC									
01...	59	63	1	3.8	189	560	16	.50	6.6
29...	15	--	--	--	92	--	--	.30	9.2
JAN									
24...	17	--	--	--	94	--	--	.30	8.4
FEB									
23...	18	--	--	--	99	--	--	.30	6.3
MAR									
22...	28	--	--	--	124	--	--	.30	4.1
APR									
18...	21	--	--	--	119	--	--	.60	8.0
MAY									
24...	2.7	4.0	.3	1.0	20	23	1.5	.20	8.6
JUN									
25...	4.0	5.2	.3	.60	30	31	1.3	.02	5.6
JUL									
17...	30	--	--	--	75	--	--	.30	4.2
AUG									
21...	17	--	--	--	68	--	--	.20	8.9
SEP									
25...	23	--	--	--	104	--	--	.30	7.0

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT									
25...	51	.07	45	<.020	<.100	.040	.40	.050	--
DEC									
01...	990	1.3	25	<.010	1.00	.050	.90	.020	--
29...	--	--	--	<.010	--	.050	.30	<.020	--
JAN									
24...	--	--	--	<.010	--	.040	.30	.020	--
FEB									
23...	--	--	--	<.010	--	.050	.70	.030	<.01
MAR									
22...	--	--	--	.010	--	.060	.40	.050	--
APR									
18...	--	--	--	<.010	--	.030	--	--	--
MAY									
24...	63	.09	48	<.010	.160	.140	.50	.020	<.01
JUN									
25...	80	.11	42	<.010	.190	.020	.20	.020	--
JUL									
17...	--	--	--	<.010	--	.050	.40	<.010	--
AUG									
21...	--	--	--	<.010	--	.030	.40	<.010	<.01
SEP									
25...	--	--	--	<.010	--	.040	<.20	<.010	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT								
25...	1200	1800	--	1	13	16	--	85
DEC								
01...	1300	--	<1	<1	<10	15	210	54
29...	1430	80	--	1	3	5	--	34
JAN								
24...	1100	70	--	<1	<1	1	--	32
FEB								
23...	1230	--	1	<1	1	<1	100	34
MAR								
22...	1230	330	--	<1	4	22	--	39
APR								
18...	1200	--	--	--	--	--	--	35
MAY								
24...	1400	--	<1	<1	6	13	2300	140
JUN								
25...	1200	440	--	<1	3	12	--	84
JUL								
17...	1300	1500	--	<1	4	5	--	15
AUG								
21...	1300	--	<1	<1	30	5	840	34
SEP								
25...	1200	70	--	1	<1	3	--	40

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
25...	3	--	9	--	--	--	60
DEC							
01...	1	90	78	.2	5	12	20
29...	3	--	17	--	--	--	20
JAN							
24...	1	--	18	--	--	--	30
FEB							
23...	<1	30	26	<.1	3	5	<10
MAR							
22...	12	--	72	--	--	--	10
APR							
18...	--	--	23	--	--	--	--
MAY							
24...	53	70	13	<.1	17	<1	30
JUN							
25...	<1	--	10	--	--	--	20
JUL							
17...	5	--	16	--	--	--	10
AUG							
21...	2	40	11	<.1	32	1	60
SEP							
25...	<1	--	33	--	--	--	10

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°23'00", long 105°01'45", in NW¼SE¼ sec.20, T.5 N., R.68 W., Larimer County, Hydrologic Unit 101190006, at county road 9 E bridge, about 0.3 mi upstream from outlet ditch and 2.0 mi southeast of Loveland.

DRAINAGE AREA.--540 mi^2, approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT									
25...	1000	24	1100	7.9	9.0	9.6	480	120	44
DEC									
01...	1430	18	1250	7.9	4.5	11.2	510	120	50
29...	1700	49	600	7.6	1.0	12.0	230	59	19
JAN									
24...	1400	43	625	7.7	3.0	13.0	250	64	21
FEB									
23...	1430	34	720	8.2	8.0	12.2	260	65	24
MAR									
22...	1500	17	850	8.0	6.0	11.6	330	80	31
APR									
18...	1000	36	825	8.0	10.5	9.3	340	87	30
MAY									
24...	1200	450	110	7.4	13.0	8.7	36	9.6	3.0
JUN									
25...	1000	326	140	7.8	13.0	10.8	50	13	4.2
JUL									
17...	1500	137	700	8.2	24.0	11.7	280	62	30
AUG									
21...	1500	114	540	8.5	22.0	11.6	210	50	20
SEP									
25...	1400	49	750	8.0	12.0	11.6	290	73	27

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT									
25...	65	1	4.8	157	410	21	.70	7.7	780
DEC									
01...	89	2	7.2	177	440	31	.90	7.8	870
29...	--	--	--	108	--	--	.50	9.2	--
JAN									
24...	--	--	--	107	--	--	.50	8.5	--
FEB									
23...	--	--	--	116	--	--	.60	6.5	--
MAR									
22...	--	--	--	124	--	--	.70	4.9	--
APR									
18...	--	--	--	144	--	--	.60	6.6	--
MAY									
24...	5.3	.4	1.1	20	24	2.2	.20	8.7	67
JUN									
25...	6.7	.4	.70	30	32	2.0	.20	5.6	82
JUL									
17...	--	--	--	81	--	--	.40	4.7	--
AUG									
21...	--	--	--	79	--	--	.40	5.6	--
SEP									
25...	--	--	--	114	--	--	.60	7.4	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 25...	1.1	50	1.62	.180	1.80	3.10	3.6	1.90	--
DEC 01...	1.2	42	1.83	.170	2.00	6.40	16	3.00	--
29...	--	--	--	.060	--	2.00	2.5	.770	--
JAN 24...	--	--	--	.050	--	2.00	2.5	1.20	--
FEB 23...	--	--	--	.100	--	3.50	3.6	1.60	<.01
MAR 22...	--	--	--	.140	--	1.30	2.3	1.90	--
APR 18...	--	--	--	.090	--	1.00	1.9	1.70	--
MAY 24...	.09	81	--	<.010	.220	.590	.80	.080	<.01
JUN 25...	.11	73	--	<.010	.260	<.010	.60	.150	--
JUL 17...	--	--	--	.030	--	.320	.90	.210	--
AUG 21...	--	--	--	--	--	--	1.4	.230	<.01
SEP 25...	--	--	--	.140	--	.690	1.4	.950	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 25...	1000	1800	--	<1	14	17	--	40
DEC 01...	1430	--	<1	<1	<10	6	200	46
29...	1700	210	--	1	5	5	--	30
JAN 24...	1400	200	--	<1	1	3	--	25
FEB 23...	1430	--	<1	<1	<1	1	130	26
MAR 22...	1500	140	--	<1	3	5	--	48
APR 18...	1000	400	--	1	1	6	--	44
MAY 24...	1200	--	<1	<1	7	10	2500	160
JUN 25...	1000	670	--	<1	4	7	--	90
JUL 17...	1500	1200	--	<1	5	6	--	21
AUG 21...	1500	--	3	<1	33	4	680	29
SEP 25...	1400	180	--	1	<1	5	--	36

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
25...	4	--	46	--	--	--	70
DEC							
01...	1	90	70	<.1	13	7	30
29...	4	--	24	--	--	--	20
JAN							
24...	1	--	28	--	--	--	10
FEB							
23...	3	50	33	<.1	5	3	10
MAR							
22...	<1	--	59	--	--	--	20
APR							
18...	1	--	61	--	--	--	10
MAY							
24...	<1	70	6	<.1	11	<1	40
JUN							
25...	<1	--	10	--	--	--	40
JUL							
17...	4	--	16	--	--	--	20
AUG							
21...	2	50	11	<.1	34	2	10
SEP							
25...	2	--	31	--	--	--	20

06742500 CARTER LAKE NEAR BERTHOUD, CO

LOCATION.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, Hydrologic Unit 10190006, in hoist house 293 ft from right abutment of Carter Lake Dam on Dry Creek, 7.0 mi west of Berthoud, and 8.9 mi upstream from mouth. Water-quality sampling site near center of reservoir.

WATER-CONTENTS RECORDS

PERIOD OF RECORD.--March 1954 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 13 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954. Usable capacity, 113,500 acre-ft between elevations 5,618.00 ft, trashrack sill at outlet, and 5,763.00 ft, maximum water surface, 6 ft below crest of dam. Dead storage, 3,310 acre-ft. Figures given represent usable contents. Water diverted from Colorado River basin through Alva B. Adams tunnel is pumped from Flatiron Reservoir into Carter Lake for supplemental irrigation supply to Little Thompson River and St. Vrain and Boulder Creek basins. Water above elevation 5,620 ft may be released for return to Flatiron Reservoir where pump turbines can operate in reverse to generate power and water can be used for irrigation in Big Thompson or Cache la Poudre River basins.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,100 acre-ft, Apr. 27-29, 1971, elevation, 5,759.12 ft; minimum observed since appreciable storage was attained, 960 acre-ft, Oct. 25, 1954, elevation, 5,621.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 108,900 acre-ft June 29, elevation, 5,758.98 ft; minimum contents, 52,370 acre-ft, Nov. 13, elevation, 5,703.92 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	5,712.10	59,880	-
Oct. 31.	5,704.24	52,650	-7,230
Nov. 30.	5,713.94	61,620	+8,970
Dec. 31.	5,731.46	78,990	+17,370
CAL YR 1983.			+3,750
Jan. 31.	5,736.52	84,250	+5,260
Feb. 29.	5,745.48	93,830	+9,580
Mar. 31.	5,753.72	102,900	+9,070
Apr. 30.	5,754.62	104,000	+1,100
May 31.	5,754.98	104,400	+400
June 30.	5,758.88	108,800	+4,400
July 31.	5,744.02	92,250	-16,550
Aug. 31.	5,744.92	93,120	+870
Sept. 30.	5,739.64	87,550	-5,570
WTR YR 1984			+27,670

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1970 to current year.

REMARKS.--Samples collected at various depths near south end of reservoir. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
APR						
18...	1125	.10	87	8.2	5.0	10.8
18...	1127	5.00	87	8.2	5.0	10.8
18...	1129	10.0	87	8.2	5.0	10.8
18...	1131	20.0	87	8.2	5.0	10.8
18...	1133	25.0	87	8.1	5.0	10.8
18...	1135	30.0	86	8.1	5.0	10.7
18...	1137	40.0	85	8.1	5.0	10.6
18...	1139	50.0	85	8.1	5.0	10.6
18...	1141	60.0	85	8.1	4.5	10.5
18...	1143	70.0	85	8.0	4.5	10.5
18...	1145	75.0	85	8.0	4.5	10.5
18...	1147	80.0	85	8.0	4.5	10.5
18...	1149	90.0	85	8.1	4.5	10.4
18...	1151	100	85	8.1	4.5	10.4
18...	1153	110	85	8.0	4.5	10.5
18...	1155	120	85	8.0	4.5	10.5
18...	1157	125	85	8.0	4.5	10.5
18...	1159	130	85	8.0	4.5	10.5
18...	1201	140	85	8.0	4.5	10.5
18...	1203	150	85	7.9	4.5	10.3
JUL						
12...	1110	.10	79	7.7	22.5	7.2
12...	1111	5.00	78	8.1	22.5	7.3
12...	1112	10.0	78	8.2	21.5	7.4
12...	1113	20.0	76	8.3	18.0	8.4
12...	1114	25.0	73	8.4	14.0	9.2
12...	1115	30.0	73	8.1	12.0	9.4
12...	1116	40.0	71	7.6	8.0	8.5
12...	1117	50.0	69	7.6	7.5	8.4
12...	1118	60.0	68	7.5	7.0	8.4
12...	1119	70.0	68	7.6	7.0	8.4
12...	1120	75.0	68	7.7	7.0	8.4
12...	1121	80.0	67	7.7	7.0	8.4
12...	1122	90.0	68	7.7	6.5	8.4
12...	1123	100	68	7.7	6.5	8.5
12...	1124	110	68	7.7	6.5	8.5
12...	1125	120	68	7.7	6.0	8.5
12...	1126	125	69	7.7	6.0	8.3
12...	1127	130	69	7.7	6.0	8.3
12...	1128	140	70	7.7	6.0	7.8
SEP						
12...	1000	.10	83	8.2	19.0	7.3
12...	1001	5.00	80	8.2	19.0	7.4
12...	1002	10.0	80	8.2	19.0	7.4
12...	1003	20.0	80	8.3	18.5	7.3
12...	1004	25.0	78	8.1	15.0	7.2
12...	1005	30.0	62	8.0	13.0	7.2
12...	1006	40.0	60	7.9	11.5	6.7
12...	1007	50.0	59	7.8	11.5	6.7
12...	1008	60.0	58	7.7	11.0	6.7
12...	1009	70.0	59	7.6	11.0	6.6
12...	1010	75.0	60	7.5	11.0	6.6
12...	1011	80.0	59	7.5	11.0	6.6
12...	1012	90.0	59	7.5	10.5	6.7
12...	1013	100	60	7.4	10.0	6.6

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR							
18...	1125	.10	--	87	--	--	--
JUL							
12...	1110	.10	80	108	<1	<1	41
SEP							
12...	1000	.10	--	93	--	--	--

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTEN-TIAL (MG/L)
APR							
18...	--	--	--	--	--	--	--
JUL							
12...	.06	<.010	<.10	.020	<.010	1500	1.9
SEP							
12...	--	--	--	--	--	--	--

402053105125800 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to Sept. 1984.

REMARKS.--Samples collected at various depths near north end of reservoir. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
APR						
18...	0835	.10	85	8.1	5.5	10.6
18...	0836	5.00	86	8.0	5.5	10.9
18...	0837	10.0	87	7.7	5.0	10.8
18...	0838	20.0	88	8.0	5.0	10.8
18...	0839	25.0	89	7.3	4.5	10.8
18...	0840	30.0	89	7.9	4.5	10.8
18...	0841	40.0	89	8.0	4.5	10.6
18...	0842	50.0	88	8.0	4.5	10.6
18...	0843	60.0	88	7.9	4.5	10.6
18...	0844	70.0	88	7.8	4.5	10.6
18...	0845	75.0	88	7.8	4.5	10.6
18...	0846	80.0	88	7.9	4.5	10.6
18...	0847	90.0	88	8.0	4.5	10.6
18...	0848	100	88	8.0	4.5	10.6
18...	0849	110	88	8.0	4.5	10.5
18...	0850	120	88	8.0	4.5	10.4
18...	0851	125	88	8.0	4.5	10.4
18...	0852	130	88	8.0	4.5	10.4
JUL						
12...	0845	.10	75	7.6	22.0	7.4
12...	0846	5.00	77	7.7	22.0	7.5
12...	0847	10.0	78	7.6	21.5	7.6
12...	0848	20.0	77	7.6	19.0	8.2
12...	0849	25.0	76	7.3	14.5	9.1
12...	0850	30.0	74	8.0	12.0	9.5
12...	0851	40.0	69	7.6	8.0	8.8
12...	0852	50.0	66	7.5	7.0	8.6
12...	0853	60.0	64	7.5	7.0	8.6
12...	0854	70.0	65	7.4	7.0	8.6
12...	0855	75.0	65	7.4	7.0	8.5
12...	0856	80.0	66	7.4	7.0	8.6
12...	0857	90.0	66	7.4	6.5	8.6
12...	0858	100	67	7.4	6.5	8.6
12...	0859	110	68	7.4	6.5	8.5
12...	0900	120	68	7.4	6.0	8.4
12...	0901	125	68	7.3	6.0	8.2
12...	0902	130	69	7.2	6.0	8.2
SEP						
12...	1230	.10	82	8.2	19.5	7.6
12...	1231	5.00	81	8.2	19.0	7.8
12...	1232	10.0	80	8.2	19.0	7.6
12...	1233	20.0	80	8.2	18.5	7.6
12...	1234	25.0	74	8.1	14.5	7.4
12...	1235	30.0	62	8.0	12.0	7.2
12...	1236	40.0	60	7.8	11.5	7.0
12...	1237	50.0	59	7.7	11.0	7.0
12...	1238	60.0	59	7.6	11.0	7.0
12...	1239	70.0	60	7.6	11.0	7.0
12...	1240	75.0	60	7.5	10.5	7.0
12...	1241	80.0	59	7.5	10.5	6.9
12...	1242	90.0	60	7.5	10.5	6.9
12...	1243	100	61	7.4	10.5	6.9
12...	1244	110	62	7.4	10.0	6.9
12...	1245	120	62	7.4	8.5	6.0
12...	1246	125	65	7.3	7.5	5.3

DATE	TIME	SAM-PLING DEPTH (FEET)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR						
18...	0835	.10	[illegible]	--	--	--
JUL						
12...	0845	.10	132	<1	<1	46
12...	0902	130	--	--	--	38
SEP						
12...	1230	.10	107	--	--	--

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402053105125800 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTEN-TIAL (MG/L)
APR							
18...	--	--	--	--	--	--	--
JUL							
12...	.06	<.010	<.10	.010	<.010	1800	1.6
12...	.05	<.010	<.10	.020	<.010	--	--
SEP							
12...	--	--	--	--	--	--	--

402009105130700 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to Sept. 1984.

REMARKS.--Samples collected at various depths near center of reservoir. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
APR						
18...	1000	.10	89	8.1	6.0	10.8
18...	1002	5.00	89	8.1	5.5	10.7
18...	1004	10.0	89	8.2	5.5	10.6
18...	1006	20.0	88	8.2	5.0	10.7
18...	1008	25.0	88	8.1	5.0	10.6
18...	1010	30.0	88	8.1	4.5	10.2
18...	1012	40.0	88	8.0	4.5	10.4
18...	1014	50.0	87	8.0	4.5	10.4
18...	1016	60.0	86	8.0	4.5	10.3
18...	1018	70.0	86	8.0	4.5	10.3
18...	1020	75.0	86	8.1	4.5	10.3
18...	1022	80.0	86	8.2	4.5	10.3
18...	1024	90.0	86	8.2	4.5	10.4
18...	1026	100	87	8.2	4.5	10.4
18...	1028	110	87	8.2	4.5	10.4
18...	1030	120	87	8.2	4.5	10.4
18...	1032	125	87	8.2	4.5	10.4
18...	1034	130	86	8.2	4.5	10.3
18...	1036	140	86	8.2	4.5	10.2
18...	1038	150	86	8.2	4.5	10.2
JUL						
12...	1000	.10	77	7.9	22.5	7.2
12...	1001	5.00	77	8.0	22.0	7.3
12...	1002	10.0	78	8.0	21.5	7.4
12...	1003	20.0	77	8.2	19.0	8.1
12...	1004	25.0	76	7.9	15.5	9.1
12...	1005	30.0	74	8.0	12.0	9.6
12...	1006	40.0	71	7.7	8.0	8.6
12...	1007	50.0	67	7.5	7.5	8.5
12...	1008	60.0	67	7.5	7.0	8.5
12...	1009	70.0	68	7.5	7.0	8.5
12...	1010	75.0	67	7.4	7.0	8.5
12...	1011	80.0	67	7.4	7.0	8.5
12...	1012	90.0	67	7.4	6.5	8.5
12...	1013	100	67	7.4	6.5	8.6
12...	1014	110	68	7.5	6.5	8.6
12...	1015	120	69	7.5	6.0	8.6
12...	1016	125	69	7.5	6.0	8.6
12...	1017	130	69	7.5	6.0	8.5
12...	1018	140	70	7.3	6.0	8.1
12...	1019	150	73	7.3	6.0	7.9
SEP						
12...	1100	.10	81	8.2	19.5	7.6
12...	1101	5.00	81	8.2	19.0	7.7
12...	1102	10.0	80	8.3	19.0	7.7
12...	1103	20.0	81	8.3	18.5	7.6
12...	1104	25.0	70	8.2	14.5	7.6
12...	1105	30.0	61	8.0	12.0	7.1
12...	1106	40.0	60	7.8	11.5	7.0
12...	1107	50.0	60	7.7	11.0	7.0
12...	1108	60.0	59	7.6	11.0	7.0
12...	1109	70.0	60	7.6	11.0	7.0
12...	1110	75.0	60	7.5	11.0	7.0
12...	1111	80.0	60	7.5	10.5	7.0
12...	1112	90.0	60	7.5	10.5	7.0
12...	1113	100	60	7.5	10.5	7.0
12...	1114	110	61	7.4	10.0	7.0
12...	1115	120	61	7.4	9.5	6.7
12...	1116	125	63	7.4	8.5	6.3
12...	1117	130	66	7.3	8.0	6.0
12...	1118	140	68	7.3	7.0	5.2

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR						
18...	1000	.10	86	<1	<1	42
JUL						
12...	1000	.10	113	<1	<1	45
SEP						
12...	1100	.10	121	<1	<1	47

402009105130700 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	ALGAL GROWTH POTEN-TIAL (MG/L)
APR 18...	.06	<.010	<.10	.080	.010	10750	360
JUL 12...	.06	<.010	.10	.020	<.010	1300	1.4
SEP 12...	.06	<.010	<.10	<.010	<.010	1100	1.9

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°32'24", long 105°52'56", in SE¼SE¼ sec.26, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft below unnamed tributary and Colorado Highway 14 culvert crossing, 1.5 mi northeast of Cameron Pass, 1.5 mi southwest of Joe Wright Dam, and 8 mi east of Gould.

DRAINAGE AREA.--3.01 mi^2.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,990 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 7.24 ft^3/s; 5,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 238 ft^3/s, July 7, 1983, gage height, 2.20 ft; maximum gage height, 5.41 ft, May 27, 1983 (backwater from ice); minimum daily discharge, 0.20 ft^3/s, Jan. 30-Apr. 4, 1979, Feb. 9 to Apr. 9, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 235 ft^3/s at 1630 June 30, gage height, 2.12 ft; minimum daily 0.35 ft^3/s, May 1-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.0	.64	.50	.50	.50	.50	.35	35	59	7.9	11
2	2.1	.96	.64	.50	.50	.50	.50	.35	33	51	6.8	4.8
3	2.0	.92	.64	.50	.50	.50	.50	.35	30	44	6.5	4.3
4	2.7	.88	.64	.50	.50	.50	.50	.35	31	40	6.3	3.9
5	2.7	.84	.64	.50	.50	.50	.50	.35	30	37	6.3	3.7
6	2.5	.80	.64	.50	.50	.50	.50	.35	24	32	6.4	3.7
7	2.3	.76	.64	.50	.50	.50	.50	.35	20	28	6.3	4.1
8	2.2	.74	.64	.50	.50	.50	.50	.35	16	27	5.7	3.8
9	2.2	.70	.64	.50	.50	.50	.50	.54	13	27	5.8	3.7
10	2.5	.66	.64	.50	.50	.50	.50	.82	15	41	5.5	3.5
11	1.8	.64	.64	.50	.50	.50	.50	1.2	21	27	5.5	3.7
12	1.9	.64	.64	.50	.50	.50	.50	1.8	24	23	5.1	4.1
13	2.2	.64	.64	.50	.50	.50	.50	2.5	34	20	5.1	4.4
14	1.8	.64	.64	.50	.50	.50	.50	4.0	47	19	5.2	3.7
15	1.9	.64	.64	.50	.50	.50	.50	6.0	48	17	5.2	3.5
16	1.6	.64	.64	.50	.50	.50	.50	5.9	54	16	5.0	6.3
17	1.7	.64	.60	.50	.50	.50	.50	5.7	62	22	4.8	3.9
18	1.5	.64	.57	.50	.50	.50	.50	5.6	50	27	5.3	3.7
19	1.6	.64	.54	.50	.50	.50	.50	6.4	46	25	5.0	3.6
20	1.5	.64	.50	.50	.50	.50	.50	7.5	46	23	8.7	3.4
21	1.5	.64	.50	.50	.50	.50	.48	8.8	50	23	5.5	4.5
22	1.6	.64	.50	.50	.50	.50	.45	10	49	25	5.7	3.9
23	1.8	.64	.50	.50	.50	.50	.45	12	48	27	5.1	3.5
24	1.9	.64	.50	.50	.50	.50	.45	14	49	21	6.8	3.4
25	1.4	.64	.50	.50	.50	.50	.45	16	46	11	5.2	4.2
26	2.0	.64	.50	.50	.50	.50	.42	13	46	10	4.9	4.2
27	1.5	.64	.50	.50	.50	.50	.40	14	47	9.6	4.4	4.2
28	1.5	.64	.50	.50	.50	.50	.40	15	51	9.5	4.9	3.9
29	1.3	.64	.50	.50	.50	.50	.40	19	60	8.8	4.3	4.0
30	1.1	.64	.50	.50	---	.50	.40	27	69	8.7	4.0	3.9
31	1.1	---	.50	.50	---	.50	---	33	---	7.8	8.7	---
TOTAL	57.6	21.06	17.95	15.50	14.50	15.50	14.30	232.56	1194	766.4	178.0	126.5
MEAN	1.86	.70	.58	.50	.50	.50	.48	7.50	39.8	24.7	5.74	4.22
MAX	2.7	1.0	.64	.50	.50	.50	.50	33	69	59	8.7	11
MIN	1.1	.64	.50	.50	.50	.50	.40	.35	13	7.8	4.0	3.4
AC-FT	114	42	36	31	29	31	28	461	2370	1520	353	251

CAL YR 1983	TOTAL	3269.47	MEAN	8.96	MAX	98	MIN	.50	AC-FT 6480
WTR YR 1984	TOTAL	2653.87	MEAN	7.25	MAX	69	MIN	.35	AC-FT 5260

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO MAY 31.

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°33'43", long 105°52'09", in SE¼NE¼ sec.24, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 500 ft downstream from unnamed tributary, 2,000 ft downstream from Joe Wright Dam, and 3 mi southwest of Chambers Lake.

DRAINAGE AREA.--6.90 mi².

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,710 ft, from topographic map.

REMARKS.--Records poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 11.6 ft³/s; 8,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145 ft³/s, June 30, 1978, gage height, 2.46 ft; minimum daily, 0.27 ft³/s. Jan. 31 to Feb. 14, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 121 ft³/s at 2030 June 19, gage height, 2.21 ft; minimum daily, 0.30 ft³/s, Jan. 25 to May 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.76	.60	.43	.30	.30	.30	.30	82	94	19	7.4
2	1.0	.70	.60	.43	.30	.30	.30	.30	81	108	16	6.8
3	1.0	.66	.60	.43	.30	.30	.30	.30	79	104	14	10
4	1.0	.63	.58	.43	.30	.30	.30	.30	79	82	13	28
5	1.0	.60	.55	.43	.30	.30	.30	.30	72	68	13	36
6	1.0	.60	.52	.43	.30	.30	.30	.30	61	55	13	43
7	1.0	.60	.50	.43	.30	.30	.30	.30	58	43	13	44
8	1.0	.60	.48	.43	.30	.30	.30	.30	56	43	13	44
9	1.0	.60	.46	.43	.30	.30	.30	.60	55	45	12	43
10	1.0	.60	.44	.43	.30	.30	.30	1.5	55	49	12	43
11	1.0	.60	.43	.43	.30	.30	.30	1.8	53	53	12	43
12	1.0	.60	.43	.43	.30	.30	.30	2.2	44	56	12	42
13	1.0	.60	.43	.43	.30	.30	.30	2.7	46	49	12	37
14	1.0	.60	.43	.43	.30	.30	.30	3.2	46	37	7.3	33
15	1.0	.60	.43	.43	.30	.30	.30	3.7	46	29	7.6	29
16	.96	.60	.43	.40	.30	.30	.30	4.1	49	30	11	29
17	.90	.60	.43	.39	.30	.30	.30	4.2	59	59	11	29
18	.86	.60	.43	.38	.30	.30	.30	4.1	78	70	13	29
19	.82	.60	.43	.37	.30	.30	.30	3.8	113	72	13	29
20	.80	.60	.43	.35	.30	.30	.30	5.1	114	73	14	28
21	.80	.60	.43	.34	.30	.30	.30	6.6	105	69	13	26
22	.80	.60	.43	.33	.30	.30	.30	6.5	101	60	14	26
23	.80	.60	.43	.32	.30	.30	.30	7.6	96	52	15	26
24	.80	.60	.43	.31	.30	.30	.30	9.7	90	55	16	26
25	.80	.60	.43	.30	.30	.30	.30	11	83	62	16	15
26	.80	.60	.43	.30	.30	.30	.30	7.9	73	58	16	5.6
27	.80	.60	.43	.30	.30	.30	.30	8.0	66	28	15	7.0
28	.80	.60	.43	.30	.30	.30	.30	34	65	24	13	8.1
29	.80	.60	.43	.30	.30	.30	.30	53	64	21	9.8	8.8
30	.80	.60	.43	.30	---	.30	.30	56	65	21	9.0	8.7
31	.80	---	.43	.30	---	.30	---	74	---	20	7.2	---
TOTAL	28.14	18.35	14.36	11.74	8.70	9.30	9.00	313.70	2134	1689	394.9	790.4
MEAN	.91	.61	.46	.38	.30	.30	.30	10.1	71.1	54.5	12.7	26.3
MAX	1.0	.76	.60	.43	.30	.30	.30	74	114	108	19	44
MIN	.80	.60	.43	.30	.30	.30	.30	.30	44	20	7.2	5.6
AC-FT	56	36	28	23	17	18	18	622	4230	3350	783	1570

CAL YR 1983	TOTAL	5137.25	MEAN	14.1	MAX	123	MIN	.42	AC-FT	10190
WTR YR 1984	TOTAL	5421.59	MEAN	14.8	MAX	114	MIN	.30	AC-FT	10750

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO MAY 8.

06749500 CACHE LA POUDRE RIVER NEAR FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°42'04", long 105°14'27", in NW¼SW¼ sec.33, T.9 N., R.70 W., Larimer County, Hydrologic Unit 10190007, 1,000 ft upstream from North Fork and 11 mi northwest of Fort Collins.

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 05...	1020	60	77	7.8	8.0	9.6	27	7.7	2.0	3.4
NOV 09...	1150	40	87	7.7	1.0	11.5	32	9.0	2.4	4.1
DEC 15...	1030	44	92	7.9	.0	11.8	34	9.3	2.6	4.1
JAN 24...	1330	43	90	7.3	.0	12.0	36	9.9	2.7	4.6
FEB 24...	1415	47	93	7.4	.5	11.6	36	9.8	2.7	4.4
MAR 29...	1330	29	95	7.8	6.0	10.2	37	10	2.8	4.6
APR 30...	1040	134	115	7.9	4.0	10.7	46	13	3.4	5.3
MAY 25...	1400	3300	34	7.0	7.0	10.0	12	3.4	.90	1.5
JUN 21...	0945	1980	32	7.2	9.0	9.8	12	3.3	.80	1.5
JUL 26...	0935	944	32	7.4	13.5	8.6	12	3.6	.80	1.4
AUG 16...	1245	420	38	7.5	17.0	8.2	15	4.4	1.0	1.7
SEP 21...	1225	50	45	7.8	14.5	8.3	19	5.5	1.3	2.2

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 05...	.3	1.0	33	5.2	1.2	.20	9.7	50	.07
NOV 09...	.3	1.0	38	5.3	1.4	.20	11	57	.08
DEC 15...	.3	.90	39	6.3	1.4	.20	11	59	.08
JAN 24...	.3	1.0	40	6.6	1.6	.20	11	62	.08
FEB 24...	.3	.90	42	6.4	1.5	.20	11	62	.08
MAR 29...	.3	1.2	43	6.5	1.7	.20	9.9	63	.09
APR 30...	.4	1.2	47	11	2.2	.40	13	78	.11
MAY 25...	.2	.80	10	8.7	.90	.10	7.6	30	.04
JUN 21...	.2	.40	12	5.6	.50	.10	7.4	27	.04
JUL 26...	.2	.60	12	3.7	.30	.10	6.5	24	.03
AUG 16...	.2	.60	16	3.4	.30	.10	6.8	28	.04
SEP 21...	.2	1.4	21	4.5	.50	.10	8.7	37	.05

06749500 CACHE LA POUDRE RIVER NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT 05...	8.2	.08	.020	.10	.060	.60	.010	--	--
NOV 09...	6.2	--	<.020	<.10	.030	.60	<.010	--	--
DEC 15...	7.0	--	<.010	.14	<.010	<.20	.010	--	--
JAN 24...	7.2	--	<.010	.14	.050	<.20	<.010	--	--
FEB 24...	7.9	--	<.010	<.10	.060	<.20	.020	--	--
MAR 29...	4.9	--	<.010	<.10	<.010	.20	.010	--	--
APR 30...	28	--	<.010	.18	.100	.60	.020	--	--
MAY 25...	268	--	<.010	<.10	.020	1.3	.020	<.1	<.10
JUN 21...	144	--	<.010	<.10	.040	.40	.010	--	--
JUL 26...	62	--	<.010	<.10	.020	.20	<.010	<.1	<.10
AUG 16...	32	--	<.010	<.10	.030	.20	.010	--	--
SEP 21...	5.0	--	<.010	.12	<.010	.40	<.010	--	--

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 05...	70	--	1	1	3	--	45
NOV 09...	--	<1	1	10	4	210	37
DEC 15...	40	--	<1	<1	4	--	48
JAN 24...	40	--	<1	<1	2	--	30
FEB 24...	--	<1	<1	4	4	50	24
MAR 29...	30	--	<1	2	4	--	20
APR 30...	320	--	<10	1	2	--	160
MAY 25...	--	<1	<1	12	8	4500	170
JUN 21...	410	--	1	3	12	--	100
JUL 26...	360	--	<1	5	2	--	57
AUG 16...	--	<1	<1	17	1	230	60
SEP 21...	60	--	<1	<1	2	--	75

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06749500 CACHE LA POUDRE RIVER NEAR FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 05...	2	--	4	--	--	--	10
NOV 09...	1	<10	4	<.1	7	<1	20
DEC 15...	2	--	2	--	--	--	20
JAN 24...	9	--	2	--	--	--	10
FEB 24...	4	30	3	<.1	4	<1	10
MAR 29...	<1	--	3	--	--	--	10
APR 30...	310	--	3	--	--	--	10
MAY 25...	3	110	8	<.1	8	<1	30
JUN 21...	<1	--	2	--	--	--	<10
JUL 26...	1	--	2	--	--	--	<10
AUG 16...	1	20	<1	<.1	18	<1	80
SEP 21...	3	--	6	--	--	--	<10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
MAY 25...	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010	<.010
JUL 26...	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010	<.010

DATE	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
MAY 25...	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
JUL 26...	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)
MAY 25...	<.01	<.1	<1	<.01	<.01	<.01	<.01	<.01
JUL 26...	<.01	<.1	<1	<.01	<.01	<.01	<.01	<.01

06752000 CACHE LA POUDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, CO

LOCATION.--Lat 40°39'52", long 105°13'26", in NW¼ sec.15, T.8 N., R.70 W., Larimer County, Hydrologic Unit 10190007, on left bank at mouth of canyon, 0.5 mi downstream from headgate of Poudre Valley Canal, 1.2 mi upstream from Lewstone Creek, and 9.3 mi northwest of courthouse in Fort Collins.

DRAINAGE AREA.--1,056 mi^2.

PERIOD OF RECORD.--Streamflow records, June to August 1881, May to July 1883, October 1883 to current year. Monthly discharge only for some periods, published in WSP 1310. Records for Mar. 23 to Apr. 30 and July 4 to Aug. 20, 1883, published in WSP 9, have been found to be unreliable and should not be used. Prior to 1902, published as Cache la Poudre Creek or River at or near Fort Collins. Water-quality data available, June 1962 to October 1965, October 1971 to September 1982.

REVISED RECORDS.--WSP 1310: 1885-87, 1889, 1892, 1894-96, 1934. WSP 1730: 1960, drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 5,220 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin and transmountain diversions (see elsewhere in this report), diversions above station for irrigation of about 50,000 acres, most of which is below station 63,790 acre-ft during current year, and diversions for municipal use 10,880 acre-ft during current year.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, occurred May 20, 1904; maximum discharge determined, 21,000 ft^3/s June 9, 1891 (from reports of State Engineer of Colorado), caused by failure of Chambers Lake Dam; minimum daily discharge, 1.6 ft^3/s, Nov. 20, 28, 1948, caused by diversion of Poudre Valley Canal 0.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,000 ft^3/s at 1000 May 25, gage height, 6.27 ft; minimum daily, 21 ft^3/s, Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	415	126	90	130	131	45	730	2330	2420	730	533
2	49	754	147	126	128	131	40	762	2180	2110	730	559
3	51	386	157	136	139	119	53	810	1960	1930	599	514
4	76	45	150	222	153	103	36	842	1860	1680	474	443
5	180	44	140	263	159	84	75	678	1720	1470	474	443
6	230	36	171	263	148	84	87	634	1600	1310	474	462
7	230	34	196	217	147	84	101	634	1440	1200	546	346
8	222	40	200	155	140	56	128	683	1240	1080	507	368
9	190	37	197	157	135	73	143	516	1150	1030	500	368
10	172	24	193	151	133	123	162	260	1180	1440	474	240
11	169	36	188	159	132	128	199	353	1310	1260	443	175
12	155	51	186	159	128	103	190	425	1340	899	474	170
13	146	42	192	143	125	103	180	585	1330	908	481	217
14	149	36	195	131	119	104	172	862	1940	866	526	235
15	158	25	169	122	113	116	149	2040	2120	1080	520	212
16	139	38	168	113	107	116	143	2320	2110	980	500	169
17	60	46	142	102	113	111	140	2400	2160	882	507	155
18	210	46	121	83	131	141	118	2370	2110	802	494	149
19	578	41	63	106	128	133	226	2180	2050	802	552	120
20	566	25	62	122	128	133	419	2200	2040	802	592	111
21	397	38	62	122	131	133	462	2400	1890	778	627	91
22	79	32	62	150	144	144	302	2470	1900	738	552	77
23	74	30	62	180	155	132	395	2280	1820	899	662	76
24	67	21	60	191	171	120	540	2710	1790	1150	692	63
25	67	60	53	191	157	108	752	3580	1690	1190	648	77
26	63	55	58	191	161	96	962	2890	1700	971	634	85
27	60	77	66	191	161	84	1010	2670	1810	715	592	149
28	57	165	67	180	147	72	552	2250	1800	634	481	143
29	57	150	67	168	144	60	858	2000	1730	794	552	137
30	54	140	71	168	---	51	746	2100	1720	778	599	123
31	55	---	76	142	---	48	---	2360	---	715	494	---
TOTAL	4812	2969	3867	4894	4007	3224	9396	49999	53020	34313	17130	7010
MEAN	155	99.0	125	158	138	104	313	1613	1767	1107	553	234
MAX	578	754	200	263	171	144	1010	3580	2330	2420	730	559
MIN	49	21	53	83	107	48	36	260	1150	634	443	63
AC-FT	9540	5890	7670	9710	7950	6390	18640	99170	105200	68060	33980	13900

CAL YR 1983	TOTAL 331490	MEAN 908	MAX 5970	MIN 18	AC-FT 657500
WTR YR 1984	TOTAL 194641	MEAN 532	MAX 3580	MIN 21	AC-FT 386100

NOTE.--NO GAGE-HEIGHT RECORD NOV. 29 TO MAR. 29.

BEST COPY AVAILABLE

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°36'11", long 105°05'43", in NE¼SE¼ sec.3, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, at Shields Street bridge, 0.8 mi downstream from Larimer-Weld Canal and 1.0 mi northwest of Fort Collins.

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 05...	1310	174	186	8.3	12.5	9.6	--	--	--	--	--	--
NOV 09...	1400	33	382	8.4	6.5	10.9	170	50	11	--	--	--
DEC 15...	1245	17	289	8.2	2.0	12.2	130	37	8.4	--	--	--
JAN 24...	1540	146	235	7.7	.5	12.1	100	30	6.8	--	--	--
FEB 22...	1615	137	240	7.8	5.5	10.6	110	31	6.8	--	--	--
MAR 29...	1550	41	305	8.3	12.0	9.3	130	37	8.3	--	--	--
APR 30...	1220	912	134	7.8	7.0	10.1	54	16	3.4	--	--	--
MAY 29...	1700	1300	66	7.4	13.0	8.9	24	7.1	1.6	2.4	.2	.90
JUN 21...	1145	1800	50	7.3	12.5	9.3	19	5.6	1.3	--	--	--
JUL 26...	1215	445	75	7.9	16.5	8.5	32	9.5	1.9	--	--	--
AUG 17...	0900	146	88	7.9	14.5	8.9	39	12	2.3	--	--	--
SEP 21...	1000	54	174	8.2	15.0	9.4	81	24	5.0	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 05...	--	--	--	.40	9.2	--	--	--	--	.060	<.010
NOV 09...	--	--	--	.40	8.6	--	--	--	--	.050	<.010
DEC 15...	114	--	--	.70	12	--	--	--	--	.010	.020
JAN 24...	94	--	--	.70	12	--	--	--	--	.070	.010
FEB 22...	95	--	--	.70	12	--	--	--	--	.100	.050
MAR 29...	107	--	--	.60	10	--	--	--	--	.020	.010
APR 30...	53	--	--	.60	11	--	--	--	--	.100	.040
MAY 29...	22	11	1.1	.20	9.7	47	.06	167	<.10	.070	.020
JUN 21...	19	--	--	.20	8.0	--	--	--	--	.050	.010
JUL 26...	29	--	--	.20	6.6	--	--	--	--	.010	.010
AUG 17...	34	--	--	.20	6.0	--	--	--	--	.020	<.010
SEP 21...	62	--	--	.20	5.5	--	--	--	--	<.010	.020

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT 05...	290	--	<1	2	6	--	44
NOV 09...	--	<1	<1	<10	--	140	30
DEC 15...	140	--	<1	1	7	--	54
JAN 24...	580	--	<1	9	5	--	50
FEB 22...	--	1	<1	6	5	2200	50
MAR 29...	620	--	<1	6	6	--	19
APR 30...	2100	--	<1	5	6	--	250
MAY 29...	--	<1	<1	6	15	1900	190
JUN 21...	650	--	1	4	9	--	97
JUL 26...	300	--	<1	6	17	--	75
AUG 17...	--	<1	<1	23	3	290	68
SEP 21...	190	--	<1	1	7	--	51

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 05...	2	--	8	--	--	--	10
NOV 09...	8	40	28	<.1	11	<1	90
DEC 15...	1	--	11	--	--	--	10
JAN 24...	8	--	6	--	--	--	20
FEB 22...	13	80	15	<.1	7	<1	30
MAR 29...	<1	--	21	--	--	--	<10
APR 30...	9	--	48	--	--	--	20
MAY 29...	8	40	9	<.1	13	<1	40
JUN 21...	<1	--	4	--	--	--	<10
JUL 26...	10	--	4	--	--	--	<10
AUG 17...	<1	20	<1	<.1	26	<1	10
SEP 21...	2	--	7	--	--	--	20

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)
MAY									
29...	1700	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010
JUL									
26...	1215	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)
MAY									
29...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01
JUL									
26...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	MIREX, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY									
29...	<.01	<.10	<.01	<.1	<1	<.01	<.01	<.01	<.01
JUL									
26...	<.01	<.10	<.01	<.1	<1	<.01	.02	<.01	.01

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO

LOCATION.--Lat 40°35'17", long 105°04'08", in NE¼SW¼ sec.12, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft downstream from Lincoln Ave. Bridge, and 2,200 ft east of intersection of College Ave. (U.S. Highway 287) and Mountain Ave. in Fort Collins.

DRAINAGE AREA.--1,127 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s June 21, 1983, gage height, 8.31 ft; maximum gage height, 8.84 ft, Aug. 1, 1976, from floodmarks; minimum daily discharge, 0.77 ft³/s Sept. 16, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft³/s at 1100 May 25, gage height, 6.34 ft; minimum daily, 5.1 ft³/s Dec. 22-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	279	142	67	130	105	46	768	1310	1520	136	153
2	8.4	833	162	77	126	104	39	807	1220	1240	185	200
3	90	580	172	90	126	101	39	867	1030	1430	182	175
4	97	54	164	110	130	94	33	918	888	1650	146	99
5	162	40	155	154	150	72	36	691	841	1180	117	92
6	170	37	164	166	148	78	65	611	817	1150	64	124
7	149	32	229	182	146	79	69	598	744	1010	68	60
8	123	32	208	138	142	66	90	633	517	926	94	106
9	110	37	109	129	138	69	104	624	425	786	93	94
10	93	39	82	131	136	99	122	189	576	1300	108	39
11	93	24	77	120	136	111	175	369	757	1280	115	28
12	86	44	73	126	136	91	147	321	809	831	76	78
13	80	57	62	120	137	91	130	506	765	1690	103	83
14	81	56	51	115	148	86	127	1240	1380	1640	149	85
15	102	50	25	118	115	99	111	2300	1710	1260	130	65
16	113	34	7.8	120	105	97	101	2540	1690	193	126	52
17	69	52	9.9	110	101	96	110	2560	1860	112	162	45
18	84	45	9.1	90	107	104	73	2570	1830	63	161	60
19	11	58	6.8	90	116	107	148	2280	1810	74	139	70
20	259	42	6.8	90	118	103	436	2170	1690	86	154	52
21	308	38	5.5	98	120	105	511	2160	1520	153	236	54
22	36	46	5.1	106	134	122	269	2170	1430	220	112	23
23	12	25	5.1	115	141	116	358	1840	1270	273	216	22
24	10	18	5.1	123	160	105	512	1850	1060	560	240	24
25	8.4	19	5.1	135	162	91	811	2890	467	564	310	39
26	7.3	65	5.9	150	158	86	1090	2180	538	234	200	50
27	7.3	47	5.5	160	153	77	1320	1960	654	57	108	63
28	7.8	105	5.5	160	149	67	1440	1530	536	64	42	69
29	11	127	9.1	150	147	45	1340	1090	367	196	14	44
30	9.9	124	40	146	---	54	1020	1070	475	101	95	21
31	7.3	---	66	140	---	54	---	1280	---	24	65	---
TOTAL	2413.8	3039	2073.3	3826	3915	2774	10872	43582	30986	21867	4146	2169
MEAN	77.9	101	66.9	123	135	89.5	362	1406	1033	705	134	72.3
MAX	308	833	229	182	162	122	1440	2890	1860	1690	310	200
MIN	7.3	18	5.1	67	101	45	33	189	367	24	14	21
AC-FT	4790	6030	4110	7590	7770	5500	21560	86440	61460	43370	8220	4300

CAL YR 1983 TOTAL 287189.0 MEAN 787 MAX 6080 MIN 1.8 AC-FT 569600
WTR YR 1984 TOTAL 131663.1 MEAN 360 MAX 2890 MIN 5.1 AC-FT 261200

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	1620	114	238	8.5	14.0	9.8	--	--
NOV 09...	0930	38	413	8.1	4.0	11.0	180	52
DEC 15...	1430	22	337	8.3	2.0	13.0	150	43
JAN 25...	1610	134	264	7.7	.0	12.2	110	31
FEB 24...	1210	165	240	8.0	2.0	11.8	100	29
MAR 29...	1100	40	320	8.4	5.0	11.6	130	38
APR 25...	1230	772	167	8.0	8.5	9.6	69	20
MAY 25...	1100	3100	52	7.4	8.0	10.1	20	5.9
JUN 20...	1500	1710	54	7.5	13.0	9.1	21	6.0
JUL 25...	1140	658	72	7.8	14.5	8.9	30	8.9
AUG 16...	1000	147	100	8.0	15.5	9.3	44	13
SEP 20...	1000	58	194	7.5	15.0	8.9	88	26

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 04...	--	--	--	--	--	--	--	.30	8.0
NOV 09...	13	--	--	--	--	--	--	.40	8.5
DEC 15...	11	--	--	--	125	--	--	.60	11
JAN 25...	7.2	--	--	--	98	--	--	.70	12
FEB 24...	6.6	--	--	--	94	--	--	.80	12
MAR 29...	9.3	--	--	--	115	--	--	.60	9.7
APR 25...	4.7	--	--	--	62	--	--	.70	13
MAY 25...	1.3	2.0	.2	6.6	18	11	1.0	.20	8.9
JUN 20...	1.4	--	--	--	19	--	--	.20	8.2
JUL 25...	1.8	--	--	--	26	--	--	.20	6.1
AUG 16...	2.7	--	--	--	39	--	--	.20	5.8
SEP 20...	5.7	--	--	--	70	--	--	.30	5.9

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT								
04...	--	--	--	<.020	--	.060	.90	<.010
NOV								
09...	--	--	--	<.020	--	.050	.50	.020
DEC								
15...	--	--	--	<.010	--	.070	.30	.010
JAN								
25...	--	--	--	<.010	--	.060	<.20	.010
FEB								
24...	--	--	--	<.010	--	.080	.30	.030
MAR								
29...	--	--	--	<.010	--	<.010	.50	.010
APR								
25...	--	--	--	<.010	--	.080	1.1	.020
MAY								
25...	48	.06	402	<.010	<.100	.040	1.0	.020
JUN								
20...	--	--	--	<.010	--	.040	.30	.010
JUL								
25...	--	--	--	<.010	--	.020	.20	.010
AUG								
16...	--	--	--	<.010	--	.030	.30	.020
SEP								
20...	--	--	--	<.010	--	<.010	.30	.030

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
04...	180	--	<1	2	6	--	27
NOV							
09...	--	<1	<1	<10	3	210	46
DEC							
15...	70	--	<1	3	11	--	59
JAN							
25...	170	--	<1	1	3	--	48
FEB							
24...	--	1	<1	7	2	1200	40
MAR							
29...	1700	--	<1	5	9	--	23
APR							
25...	3800	--	<1	11	6	--	170
MAY							
25...	--	<1	<1	17	16	13000	230
JUN							
20...	670	--	1	5	9	--	98
JUL							
25...	520	--	<1	<1	7	--	69
AUG							
16...	--	<1	<1	30	5	290	61
SEP							
20...	140	--	<1	3	4	--	50

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT							
04...	3	--	10	--	--	--	10
NOV							
09...	1	40	32	<.1	5	<1	30
DEC							
15...	1	--	24	--	--	--	10
JAN							
25...	7	--	6	--	--	--	10
FEB							
24...	18	60	25	.1	6	1	10
MAR							
29...	3	--	27	--	--	--	20
APR							
25...	5	--	25	--	--	--	20
MAY							
25...	15	260	10	.3	14	<1	60
JUN							
20...	<1	--	3	--	--	--	<10
JUL							
25...	11	--	4	--	--	--	<10
AUG							
16...	3	20	5	<.1	23	<1	20
SEP							
20...	<1	--	8	--	--	--	<10

PLATTE RIVER BASIN

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO

LOCATION.--Lat 40°34'01", long 105°01'36", in NW¼NE¼ sec.20, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, 1.4 mi west of Interstate 25 on Prospect Street in Fort Collins.

PERIOD OF RECORD.--January 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 04...	1420	9.3	826	8.3	15.5	13.6	370	94	32	36
NOV 08...	1220	9.2	641	8.1	8.0	9.7	260	70	21	--
DEC 16...	1200	24	694	8.2	2.0	13.2	270	73	22	--
JAN 25...	1320	134	356	8.0	1.0	12.7	140	38	9.8	--
FEB 22...	1430	144	332	8.2	5.5	12.6	130	37	9.4	--
MAR 30...	1300	78	418	8.1	5.0	10.6	160	46	12	--
APR 30...	1405	912	165	7.9	7.5	9.9	66	19	4.4	--
MAY 30...	0810	1640	76	7.4	11.5	9.0	28	7.9	1.9	3.1
JUN 21...	1305	E1600	68	7.4	13.5	9.1	27	7.5	1.9	--
JUL 25...	1630	E700	134	7.9	17.5	8.0	53	15	3.8	--
AUG 16...	1445	159	208	8.8	19.[illegible]	9.5	140	21	22	--
SEP 20...	1130	71	328	8.1	17.5	10.7	130	37	9.8	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 04...	.8	2.8	225	200	12	.60	10	530	.72
NOV 08...	--	--	--	--	--	.50	9.5	--	--
DEC 16...	--	--	190	--	--	.70	11	--	--
JAN 25...	--	--	112	--	--	.70	12	--	--
FEB 22...	--	--	113	--	--	.70	11	--	--
MAR 30...	--	--	133	--	--	.60	9.3	--	--
APR 30...	--	--	58	--	--	.60	11	--	--
MAY 30...	.3	1.1	24	14	1.8	.20	53	98	.13
JUN 21...	--	--	19	--	--	.20	8.3	--	--
JUL 25...	--	--	41	--	--	.20	6.6	--	--
AUG 16...	--	--	57	--	--	.20	6.2	--	--
SEP 20...	--	--	93	--	--	.40	6.5	--	--

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT 04...	13	1.9	.040	1.9	.070	1.2	.040	--	--
NOV 08...	--	--	.110	--	.590	1.5	.230	--	--
DEC 16...	--	--	.110	--	1.00	1.2	.270	--	--
JAN 25...	--	--	.010	--	.600	1.6	.160	--	--
FEB 22...	--	--	.010	--	.510	.80	.190	--	--
MAR 30...	--	--	.020	--	1.10	2.2	.230	--	--
APR 30...	--	--	.010	--	.150	.70	.040	--	--
MAY 30...	432	--	<.010	<.10	.060	.90	.030	<.1	<.10
JUN 21...	--	--	<.010	--	.080	1.0	.010	--	--
JUL 25...	--	--	.020	--	.060	.50	.050	<.1	<.10
AUG 16...	--	--	.040	--	.100	.60	.060	--	--
SEP 20...	--	--	.090	--	.250	.90	.130	--	--

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 04...	140	--	<1	2	4	--	12
NOV 08...	--	1	<1	30	90	400	42
DEC 16...	100	--	<1	2	4	--	63
JAN 25...	120	--	<1	4	4	--	54
FEB 22...	--	1	<1	4	2	700	97
MAR 30...	510	--	<1	4	6	--	23
APR 30...	2000	--	<1	5	6	--	210
MAY 30...	--	<1	<1	6	14	2900	180
JUN 21...	590	--	1	2	6	--	99
JUL 25...	460	--	<1	2	4	--	76
AUG 16...	--	<1	<1	18	3	260	63
SEP 20...	490	--	<1	4	7	--	43

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06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS,CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 04...	1	--	40	--	--	--	10
NOV 08...	2	70	60	<.1	19	1	30
DEC 16...	2	--	49	--	--	--	10
JAN 25...	10	--	10	--	--	--	10
FEB 22...	19	50	16	<.1	6	1	20
MAR 30...	1	--	36	--	--	--	30
APR 30...	13	--	38	--	--	--	20
MAY 30...	7	60	6	<.1	13	<1	30
JUN 21...	<1	--	5	--	--	--	<10
JUL 25...	6	--	8	--	--	--	10
AUG 16...	<1	30	6	<.1	22	<1	<10
SEP 20...	2	--	12	--	--	--	20

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)
MAY 30...	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010
JUL 25...	<.010	<.1	<.010	<.010	<.010	.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)
MAY 30...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01
JUL 25...	<.010	<.01	<.010	<.010	<.010	.01	<.01	<.01	<.01

DATE	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 30...	<.01	<.01	<.1	<1	<.01	.02	<.01	<.01
JUL 25...	<.01	<.01	<.1	<1	<.01	.07	<.01	.01

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06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO

LOCATION.--Lat 40°32'56", long 105°00'28", in NW¼NE¼ sec.28, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, on left bank 2,100 ft upstream from Box Elder Creek, 2.0 mi upstream from Interstate Highway 25 bridge and 3.8 mi southeast of intersection of College Avenue and Prospect Street in Fort Collins.

DRAINAGE AREA.--1,245 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,810 ft³/s June 21, 1983, gage height, 8.02 ft; minimum daily, 3.0 ft³/s Oct. 4, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,200 ft³/s at 1500 May 25, gage height, 6.45 ft; minimum daily, 10 ft³/s, Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	129	139	89	134	142	94	714	1300	1320	105	139
2	24	488	155	99	134	137	94	754	1180	1200	250	234
3	25	426	161	104	134	134	91	794	1010	1300	208	201
4	23	94	161	125	151	128	91	858	906	1570	208	142
5	58	28	155	158	167	107	86	714	922	1150	148	109
6	73	50	161	167	158	112	117	634	874	1130	128	142
7	68	38	191	180	158	109	125	627	818	1020	91	109
8	42	14	187	158	155	101	145	607	620	962	120	104
9	33	13	128	145	148	99	164	758	536	802	104	128
10	20	14	99	142	145	114	180	301	627	1130	114	66
11	30	20	91	131	142	131	206	440	818	1240	139	35
12	33	42	94	139	142	120	184	404	882	826	89	69
13	31	58	64	137	145	114	171	536	850	1480	104	99
14	31	66	73	158	155	112	171	1020	1310	1520	137	99
15	33	68	58	148	155	120	161	2070	1640	1250	148	80
16	33	62	40	151	145	117	155	2340	1650	288	128	68
17	33	64	36	131	139	120	164	2450	1850	158	142	54
18	50	73	38	96	142	120	142	2460	1820	99	180	62
19	33	86	35	96	148	128	187	2210	1780	104	131	66
20	84	70	36	104	155	123	424	2070	1680	114	142	75
21	219	68	35	112	161	123	530	2070	1540	171	227	68
22	73	77	33	123	171	134	343	2060	1430	263	134	50
23	48	58	34	139	177	142	393	1660	1280	315	197	46
24	42	52	35	155	180	125	494	1540	1130	596	215	48
25	38	50	33	158	177	112	730	2640	578	669	310	60
26	27	82	35	167	180	109	930	2270	620	363	223	73
27	13	94	33	161	174	96	1070	1970	738	187	125	82
28	10	114	33	167	167	99	1220	1600	620	91	84	91
29	17	139	36	161	174	73	1160	1180	464	242	31	80
30	17	131	54	158	---	94	954	1110	476	171	101	56
31	16	---	82	151	---	107	---	1240	---	94	84	---
TOTAL	1297	2815	2566	4310	4513	3602	10978	42101	31949	21825	4547	2795
MEAN	41.3	93.8	82.8	139	156	116	366	1358	1065	704	147	93.2
MAX	219	488	191	180	180	142	1220	2640	1850	1570	310	234
MIN	10	13	33	89	134	73	86	301	464	91	31	35
AC-FT	2570	5580	5090	8550	8950	7140	21770	83510	63370	43290	9020	5540

CAL YR 1983 TOTAL 259585 MEAN 711 MAX 5460 MIN 10 AC-FT 514900
WTR YR 1984 TOTAL 133298 MEAN 364 MAX 2640 MIN 10 AC-FT 264400

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 04...	1230	22	1030	8.0	15.0	10.0	--	--	--	--
NOV 08...	1015	12	994	7.9	9.5	6.9	410	110	34	--
DEC 16...	1045	37	846	8.1	.5	11.4	360	97	29	--
JAN 24...	0945	149	415	7.9	.5	11.4	150	42	11	--
FEB 24...	0900	196	344	7.9	1.0	10.9	130	38	9.7	15
MAR 30...	1045	83	565	8.2	6.5	9.1	200	53	16	--
APR 25...	1515	747	390	7.9	8.5	8.1	150	37	14	--
MAY 29...	1320	1300	127	7.6	15.0	8.9	44	12	3.4	4.8
JUN 20...	1100	1800	100	7.6	13.0	9.0	37	10	2.9	--
JUL 25...	1430	755	220	8.0	18.0	8.2	85	23	6.7	--
AUG 17...	1130	138	336	8.1	18.5	9.2	140	35	12	--
SEP 20...	1310	77	476	8.3	18.5	9.6	180	50	14	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 04...	--	--	--	--	--	1.0	10	--	--
NOV 08...	--	--	--	--	--	.90	12	--	--
DEC 16...	--	--	182	--	--	.70	42	--	--
JAN 24...	--	--	120	--	--	.70	12	--	--
FEB 24...	.6	1.9	115	50	9.0	.80	11	210	.28
MAR 30...	--	--	142	--	--	.80	9.7	--	--
APR 25...	--	--	80	--	--	.70	13	--	--
MAY 29...	.3	1.2	30	25	2.0	.30	9.7	77	.10
JUN 20...	--	--	25	--	--	.20	8.4	--	
JUL 25...	--	--	42	--	--	.20	6.5	--	--
AUG 17...	--	--	69	--	--	.30	6.5	--	--
SEP 20...	--	--	112	--	--	.50	7.1	--	--

06752280 CACHE LA POUDRE R AB BOXELDER C, NR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN NITRATE DIS SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN NO2+NO3 DIS SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)
OCT									
04...	--	--	.420	--	.180	2.1	1.30	--	--
NOV									
08...	--	--	.680	--	1.20	3.1	2.00	--	--
DEC									
16...	--	--	.080	--	.760	1.4	.240	--	--
JAN									
24...	--	--	.040	--	1.00	1.2	.530	--	--
FEB									
24...	109	.51	.010	.52	.930	1.5	.460	--	--
MAR									
30...	--	--	.040	--	3.40	4.1	.860	--	--
APR									
25...	--	--	.020	--	.440	1.5	.090	--	--
MAY									
29...	270	.17	.010	.18	.200	.70	.070	<.1	<.10
JUN									
20...	--	--	.010	--	.100	.50	.020	--	--
JUL									
25...	--	--	.020	--	.100	.60	.100	<.1	<.10
AUG									
17...	--	--	.070	--	.380	1.0	.320	--	--
SEP									
20...	--	--	.170	--	1.20	1.8	.570	--	--

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT							
04...	170	--	<1	2	6	--	27
NOV							
08...	--	1	<1	<10	6	280	110
DEC							
16...	80	--	<1	3	4	--	52
JAN							
24...	110	--	<1	1	3	--	50
FEB							
24...	--	<1	<1	5	2	730	63
MAR							
30...	430	--	<1	2	6	--	39
APR							
25...	5800	--	<1	11	8	--	130
MAY							
29...	--	<1	<1	7	14	2600	150
JUN							
20...	1200	--	<1	6	7	--	100
JUL							
25...	1400	--	<1	6	6	--	73
AUG							
17...	--	<1	<1	30	5	400	60
SEP							
20...	210	--	<1	2	5	--	35

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT							
04...	4	--	51	--	--	--	20
NOV							
08...	2	130	92	<.1	8	3	40
DEC							
16...	1	--	54	--	--	--	20
JAN							
24...	8	--	17	--	--	--	20
FEB							
24...	14	50	26	<.1	5	1	20
MAR							
30...	<1	--	57	--	--	--	20
APR							
25...	2	--	28	--	--	--	50
MAY							
29...	6	60	11	<.1	13	<1	30
JUN							
20...	<1	--	5	--	--	--	<10
JUL							
25...	28	--	13	--	--	--	20
AUG							
17...	<1	30	15	<.1	22	<1	70
SEP							
20...	3	--	20	--	--	--	10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)
MAY								
29...	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010
JUL								
25...	<.010	<.1	<.010	<.010	<.010	.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)
MAY									
29...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01
JUL									
25...	<.010	<.01	<.010	<.010	<.010	.01	<.01	<.01	<.01

DATE	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY								
29...	.01	<.01	<.1	<1	<.01	.02	<.01	<.01
JUL								
25...	<.01	<.01	<.1	<1	<.01	.05	<.01	<.01

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, CO

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, Hydrologic Unit 10190007, on right bank 25 ft downstream from highway bridge, 2.9 mi east of courthouse in Greeley, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--1,877 mi².

PERIOD OF RECORD.--Streamflow records, March to October 1903, August to November 1904, January 1914 to December 1919, June 1924 to current year. Monthly discharge only for some periods, published in WSP 1310. Water-quality data available, November 1951 to September 1952, August 1954 to August 1956, December 1963 to September 1966, October 1967 to September 1968, October 1970 to September 1982.

REVISED RECORDS.--WSP 1440: 1935, 1938(M), 1942-43. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,610 ft, from topographic map. See WSP 1710 or 1730 for history of changes prior to Dec. 14, 1933.

REMARKS.-- Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation of about 250,000 acres, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--65 years (water years 1915-19, 1925-84), 131 ft³/s; 94,910 acre-ft/yr

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft³/s, June 14, 1983; gage height, 8.92 ft; maximum gage height, 8.95 ft, June 22, 1983; minimum daily discharge, 0.8 ft³/s, Oct. 3, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,090 ft³/s at 0700 May 26, gage height, 7.08 ft; minimum daily, 96 ft³/s, Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	130	195	163	271	323	220	1030	1040	297	153	161
2	116	291	257	175	254	298	222	1000	1140	806	496	173
3	118	604	304	186	257	286	205	1040	930	645	339	249
4	123	361	310	205	280	274	207	1110	705	1150	339	238
5	123	189	301	230	320	260	198	1050	730	840	274	165
6	137	173	271	283	326	246	210	889	715	695	220	147
7	147	171	313	298	329	243	227	828	700	622	180	175
8	144	169	368	313	339	240	220	818	479	568	153	149
9	137	159	345	295	310	233	240	1030	307	443	131	191
10	135	153	263	280	298	227	260	444	243	459	123	205
11	135	149	235	274	292	271	280	257	494	1150	121	161
12	135	153	230	265	263	280	304	390	645	909	105	151
13	138	151	227	265	268	257	280	396	710	936	100	175
14	137	161	217	235	307	246	257	523	936	1280	96	191
15	130	167	205	217	342	238	251	1480	1450	1240	102	205
16	128	165	189	220	313	243	246	2170	1740	402	113	233
17	130	159	169	225	292	235	240	2540	1850	180	106	233
18	135	171	159	224	274	240	238	2550	1990	130	111	189
19	146	212	163	221	274	249	217	2460	1930	111	106	182
20	146	238	161	218	301	249	426	2090	1820	100	116	198
21	180	230	157	207	365	251	818	2010	1650	97	159	227
22	233	227	157	225	379	260	695	1990	1400	109	249	222
23	165	207	157	243	348	310	645	1740	1230	217	159	220
24	155	184	157	257	345	289	695	1230	1070	246	301	227
25	149	159	157	274	342	271	872	1680	667	689	307	149
26	138	147	157	286	345	254	1170	2680	335	410	390	144
27	131	128	157	289	335	235	1400	2010	404	249	329	157
28	124	138	153	283	323	225	1590	1760	348	144	240	167
29	121	178	153	292	320	212	1590	1180	203	186	161	171
30	123	195	151	289	---	200	1460	894	110	316	138	157
31	126	---	149	283	---	227	---	907	---	203	167	---
TOTAL	4306	5919	6587	7720	9012	7872	15883	42176	27971	15829	6084	5612
MEAN	139	197	212	249	311	254	529	1361	932	511	196	187
MAX	233	604	368	313	379	323	1590	2680	1990	1280	496	249
MIN	116	128	149	163	254	200	198	257	110	97	96	144
AC-FT	8540	11740	13070	15310	17880	15610	31500	83660	55480	31400	12070	11130

CAL YR 1983 TOTAL 320621 MEAN 878 MAX 6090 MIN 96 AC-FT 636000
WTR YR 1984 TOTAL 154971 MEAN 423 MAX 2680 MIN 96 AC-FT 307400

06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO

LOCATION.--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec.9, T.5 N., R.64W., Weld County, Hydrologic Unit 10190003, on downstream side of bridge on State Highway 37, 1.9 mi north of railroad in Kersey, and 2.5 mi downstream from Cache la Poudre River.

DRAINAGE AREA.--9,598 mi².

PERIOD OF RECORD.--May 1901 to December 1903, March 1905 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Kersey" 1901-3.

REVISED RECORDS.--WSP 1310: 1902, 1906, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,575.77 ft, National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to July 3, 1935.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 888,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--71 years (water years 1902-03, 1906-74), 777 ft³/s; 562,900 acre-ft/yr, prior to completion of Chatfield Dam; 9 years (water years 1976-84), 1,429 ft³/s; 1,035,300 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft³/s, May 8, 1973, gage height, 11.73 ft; minimum daily, 28 ft³/s, Apr. 30, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,550 ft³/s at 0200 May 17, gage height, 8.53 ft; minimum daily, 684 ft³/s, July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	996	1100	1340	1520	1480	1320	5630	[illegible]250	1410	1500	4030
2	933	1130	1130	1380	1540	1480	1330	5150	4370	2240	2560	3840
3	877	1530	1220	1560	1620	1490	1300	6180	5110	2190	2450	3770
4	864	1300	1230	1670	1670	1400	1380	6260	4870	2370	2460	3570
5	852	996	1240	1840	1610	1420	1560	5890	4730	2020	2490	3180
6	905	933	1300	1910	1570	1360	1610	5300	4510	1570	2140	2700
7	905	996	1280	1920	1580	1360	1620	5320	4130	1400	1920	2570
8	884	1010	1330	1640	1660	1430	1530	4940	3880	1320	1850	2340
9	884	1070	1470	1640	1660	1380	1660	5280	3630	1160	1530	2220
10	877	1150	1570	1610	1670	1440	1950	5250	3370	1020	1190	2080
11	858	1180	1500	1520	1710	1490	2250	4660	3030	1600	1130	1900
12	864	1130	1480	1520	1670	1530	2540	4690	3290	1700	964	1740
13	912	1070	1500	1440	1650	1530	2620	4660	3510	1370	926	1670
14	912	1060	1480	1380	1800	1520	2510	5940	4960	1690	905	1640
15	933	1070	1400	1250	2140	1480	2370	7940	5890	1900	834	1780
16	905	1090	1300	1210	2190	1470	2220	9120	5860	1490	798	1900
17	912	1090	1240	1250	1900	1420	2060	9190	6320	1060	822	2140
18	956	1090	1170	1190	1690	1380	1900	9090	6920	834	858	2140
19	1010	1300	1130	1200	1520	1430	2180	8870	6870	684	1000	2070
20	948	1440	1120	1210	1440	1440	2990	7820	6620	695	1560	2000
21	956	1250	996	1200	1480	1530	4420	7180	5580	739	3160	1730
22	1090	1200	1060	1230	1540	1580	5250	6920	4920	804	5730	1480
23	912	1110	1000	1220	1580	1780	5600	6840	3940	852	5300	1300
24	852	1040	960	1260	1500	2120	6160	6210	3690	884	5300	1120
25	912	1040	990	1280	1470	1800	6340	6240	3160	1480	5580	972
26	1120	1040	1080	1310	1520	1840	6450	8120	2250	1430	6100	1030
27	1260	852	1150	1340	1570	1700	6900	7500	1980	1150	5840	1150
28	1310	870	1200	1370	1610	1470	6870	6700	1580	1010	5480	1230
29	996	1040	1050	1520	1500	1370	6210	5580	1360	1210	5010	1490
30	919	1160	1050	1520	---	1310	6100	4130	1140	1450	4570	1600
31	948	---	1180	1520	---	1320	---	3410	---	1220	4310	---
TOTAL	29486	33233	37906	44450	47580	46750	99200	196010	124720	41952	86267	62382
MEAN	951	1108	1223	1434	1641	1508	3307	6323	4157	1353	2783	2079
MAX	1310	1530	1570	1920	2190	2120	6900	9190	6920	2370	6100	4030
MIN	852	852	960	1190	1440	1310	1300	3410	1140	684	798	972
AC-FT	58490	65920	75190	88170	94370	92730	196800	388800	247400	83210	171100	123700

CAL YR 1983 TOTAL 1330124 MEAN 3644 MAX 16600 MIN 668 AC-FT 2638000
WTR YR 1984 TOTAL 849936 MEAN 2322 MAX 9190 MIN 684 AC-FT 1686000

06756995 SOUTH PLATTE RIVER AT MASTERS, CO

LOCATION.--Lat 40°18'22", long 104°14'40", in SE¼ sec.18, T.4 N., R.61 W., Weld County, Hydrologic Unit 10190003, on right bank at bridge on Weld County Road 87, 1.0 mi north of U.S. Highway 34 at Masters.

DRAINAGE AREA.--12,119 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft, from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Natural flow of stream affected by transmountain, transbasin, and storage diversions, power developments, ground-water withdrawals and diversions for irrigation, and return flows from irrigated areas.

AVERAGE DISCHARGE.--7 years (water years 1978-83), 1,175 ft³/s; 851,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s May 2, 1980, gage height, 10.06 ft; minimum daily, 3.5 ft³/s, Mar. 16, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,220 ft³/s at 0400 May 18, gage height, 8.13 ft; minimum daily, 348 ft³/s, Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	711	1110	1110	1860	1070	420	4870	1710	386	1020	4010
2	1090	711	1000	1110	1850	1060	426	4110	2200	1330	1990	3800
3	1030	718	996	1160	1830	1040	371	4730	3070	1270	2320	3720
4	978	746	1000	1360	1930	1010	348	4910	3110	1250	2110	3500
5	969	760	969	1500	1990	952	437	4910	3110	1260	2100	3140
6	1040	732	1300	1680	1820	900	415	4210	2980	725	1900	2750
7	1060	739	1110	1700	1710	843	420	4370	2770	572	1960	2560
8	1040	943	1070	1710	1650	795	426	4010	2600	616	1750	2400
9	1020	969	1190	1730	1640	774	506	4090	2320	648	1600	2300
10	1000	1020	1320	1620	1600	704	767	4530	2100	711	1160	2200
11	960	1040	1260	1520	1590	669	1350	3850	1720	1110	1030	2000
12	960	1020	1290	1500	1540	669	1610	3950	1720	1590	859	1790
13	934	1000	1280	1420	1490	655	1880	3850	1860	1170	811	1680
14	843	996	1290	1350	1490	596	1760	4310	2320	1550	843	1640
15	788	978	1240	1250	1580	603	1720	5610	3930	1720	859	1750
16	760	843	1190	1150	1710	578	1640	7340	4130	1810	859	2030
17	739	803	1130	1200	1560	584	1560	7940	4970	1230	960	2310
18	725	803	1160	1160	1450	622	1370	8010	5350	909	1030	2390
19	711	859	1090	1150	1330	610	1470	7640	5330	610	1180	2310
20	697	1050	1140	1140	1280	669	1970	6980	5210	464	1580	2230
21	704	926	980	1140	1200	482	2860	5880	4810	590	2420	1950
22	711	892	860	1180	1200	432	3890	5460	4210	774	5230	1660
23	739	827	870	1220	1200	536	4470	5330	3650	835	5440	1480
24	718	803	820	1300	1160	835	5030	4730	3050	884	5370	1340
25	683	795	800	1400	1130	943	5540	4490	2450	1310	5460	1220
26	690	835	860	1500	1130	819	5370	5250	1590	1580	5810	996
27	718	1020	930	1580	1100	788	5680	5940	1210	753	5660	1170
28	732	835	980	1650	1150	584	5760	5010	835	636	5290	1330
29	753	819	900	1800	1070	482	5510	4170	459	746	5090	1530
30	746	1090	880	1880	---	386	5330	2720	400	1130	4490	1710
31	725	---	1000	1870	---	371	---	1920	---	884	4270	---
TOTAL	26373	26283	33015	44060	43240	22061	70306	155120	85174	31053	82451	64896
MEAN	851	876	1065	1421	1491	712	2344	5004	2839	1002	2660	2163
MAX	1110	1090	1320	1880	1990	1070	5760	8010	5350	1810	5810	4010
MIN	683	711	800	1110	1070	371	348	1920	400	386	811	996
AC-FT	52310	52130	65490	87390	85770	43760	139500	307700	168900	61590	163500	128700

CAL YR 1983 TOTAL 932628 MEAN 2555 MAX 10000 MIN 555 AC-FT 1850000
WTR YR 1984 TOTAL 684032 MEAN 1869 MAX 8010 MIN 348 AC-FT 1357000

NOTE.--NO GAGE-HEIGHT RECORD DEC. 21 TO JAN. 23.

06756995 SOUTH PLATTE RIVER AT MASTERS, CO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1979. March 1982 to Current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)
OCT							
11...	1400	974	1530	8.2	13.0	7.6	8.8
NOV							
07...	1145	685	1450	8.1	10.0	3.5	8.9
DEC							
14...	1340	1390	1380	8.1	3.0	25	10.4
JAN							
23...	1430	1400	1380	7.7	.5	5.7	8.6
FEB							
23...	1430	1150	1320	7.8	7.0	32	9.0
MAR							
23...	1340	508	1210	7.9	7.5	25	9.6
APR							
24...	1315	4770	905	7.9	12.0	160	7.6
MAY							
30...	1035	2720	520	8.0	19.0	50	7.6
JUN							
19...	1345	5340	473	8.0	21.0	60	8.0
JUL							
24...	1445	955	1210	8.3	26.0	70	7.4
AUG							
13...	1600	774	1290	8.2	26.5	60	7.3
SEP							
19...	1400	2310	1030	8.2	20.5	40	7.6

DATE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT							
11...	K1200	380	430	6.20	2.2	8.4	.740
NOV							
07...	K5100	840	330	5.80	1.7	7.5	.820
DEC							
14...	K3400	160	1800	5.60	3.9	9.5	1.00
JAN							
23...	--	210	450	4.60	5.0	9.6	1.00
FEB							
23...	1400	470	1000	5.30	3.6	8.9	1.20
MAR							
23...	1100	K32	520	--	2.1	2.2	1.20
APR							
24...	K11200	K6600	K9600	3.00	2.5	5.5	.370
MAY							
30...	2400	K600	--	2.00	1.5	3.5	.400
JUN							
19...	5900	800	1100	1.40	--	1.7	.570
JUL							
24...	K4800	1200	1600	3.20	1.4	4.6	.670
AUG							
13...	1700	700	760	3.90	2.0	5.9	.540
SEP							
19...	4200	490	1300	4.20	1.1	5.3	.830

K BASED ON NON-IDEAL COLONY COUNT.

BEST C[illegible] [illegible]AILABLE

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO

LOCATION.--Lat 40°19'19", long 103°55'17", in SW¼SW¼ sec.7, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190003, on left bank 400 ft downstream from bridge on State Highway 144, 2.8 mi southeast of Weldona, and 4.2 mi upstream from Bijou Creek.

DRAINAGE AREA.--13,245 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,307.80 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1953-74), 572 ft³/s; 414,400 acre-ft/yr, prior to completion of Chatfield Dam. 9 years (water years 1976-84), 1,040 ft³/s; 753,500 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft³/s, May 8, 1973, gage height, 11.68 ft, from rating curve extended above 16,000 ft³/s; minimum daily, 39 ft³/s, May 19, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,700 ft³/s at 0500 May 19, gage height, 8.00 ft; minimum daily, 438 ft³/s, July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	954	725	938	1190	1900	1190	818	4840	2250	459	713	3360
2	954	732	1030	1130	1890	1210	930	4250	2410	717	1140	3290
3	938	811	1140	1170	1870	1170	881	4110	2430	1140	1920	3290
4	895	994	1150	1400	1970	1140	853	4700	3650	1030	1700	3180
5	846	902	1160	1550	2030	1130	874	4770	3610	1110	1710	3120
6	909	783	1050	1700	1860	1100	888	4360	3610	811	1620	2790
7	938	751	1220	1720	1750	1050	783	4070	3360	594	1630	2560
8	930	881	1210	1720	1690	978	853	3940	3150	545	1540	2500
9	923	994	1270	1760	1790	946	846	3690	2930	539	1460	2420
10	916	1040	1310	1600	1800	888	1080	4250	2710	605	1210	2420
11	916	1100	1280	1540	1670	839	1690	3730	2430	611	1060	2350
12	938	1120	1240	1540	1590	818	2080	3550	2220	1140	994	2230
13	916	1130	1240	1420	1530	811	2450	3630	2320	1070	930	1970
14	825	1110	1230	1360	1490	777	2420	3880	2460	1060	888	1860
15	777	1080	1220	1220	1570	732	2340	5020	3590	1260	962	1880
16	764	1020	1160	1180	1770	701	2150	6820	4090	1520	930	1960
17	738	946	1150	1240	1720	695	2010	8040	4700	1130	902	2050
18	732	938	1080	1160	1560	701	1910	8370	5180	895	962	2140
19	738	954	1040	1160	1420	689	1630	8440	5290	617	1020	2070
20	744	1080	994	1160	1350	719	1900	8110	5050	454	1200	1970
21	758	1130	820	1140	1260	707	2840	6980	4770	438	1700	1850
22	770	1030	870	1200	1240	617	3960	6230	4270	534	3500	1620
23	818	986	890	1240	1230	647	4160	5680	3670	629	4530	1470
24	758	930	780	1320	1230	770	4600	5420	3170	671	4430	1370
25	738	881	810	1440	1210	1060	5210	4920	2660	738	4410	1310
26	732	874	900	1520	1220	1050	5320	5080	1820	1250	4700	1200
27	818	744	970	1600	1220	986	5340	6600	1320	881	4740	1220
28	881	732	1000	1680	1240	909	5560	5590	986	611	4450	1290
29	902	930	850	1880	1220	804	5480	4770	677	539	4130	1320
30	777	954	890	1900	---	895	5260	3510	475	701	3790	1480
31	732	---	1050	1880	---	818	---	2640	---	853	3570	---
TOTAL	25975	28282	32942	44720	45290	27547	77116	160190	91258	25152	68441	63540
MEAN	838	943	1063	1443	1562	889	2571	5167	3042	811	2208	2118
MAX	954	1130	1310	1900	2030	1210	5560	8440	5290	1520	4740	3360
MIN	732	725	780	1130	1210	617	783	2640	475	438	713	1200
AC-FT	51520	56100	65340	88700	89830	54640	153000	317700	181000	49890	135800	126000

CAL YR 1983 TOTAL 1120380 MEAN 3070 MAX 15300 MIN 659 AC-FT 2222000
WTR YR 1984 TOTAL 690453 MEAN 1886 MAX 8440 MIN 438 AC-FT 1370000

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1967 to September 1968, October 1971 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: March 1977 to March 1979, April 1982 to October 1982, April 1983 to September 1983, October 1983, April 1984 to September 1984.

EXTREMES FOR PERIOD OF PUBLISHED DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 8,050 mg/L August 14, 1982; minimum daily, 8 mg/L Oct. 14, 1977.
SEDIMENT LOADS: Maximum daily, 69,400 tons June 15, 1983; minimum daily, 1.7 tons Apr. 16, 1982.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 2,020 mg/L May 8; minimum daily, 88 mg/L Sept. 24.
SEDIMENT LOADS: Maximum daily, 27,600 tons May 17; minimum daily, 163 tons July 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 11...	1515	1000	1540	8.4	13.5	9.3	560	130
NOV 07...	1310	700	1580	8.3	11.5	10.3	560	130
DEC 14...	1030	1300	1340	8.3	1.5	11.2	470	110
JAN 23...	1230	1230	1450	7.8	.5	9.4	530	130
FEB 23...	1100	1320	1360	7.7	4.5	10.0	490	120
MAR 23...	1010	720	1310	8.1	5.5	10.4	460	110
APR 24...	1730	4500	900	7.8	14.0	8.0	290	70
MAY 30...	1150	2950	535	8.0	19.0	7.6	190	48
JUN 19...	1120	5260	515	8.0	19.5	7.2	160	41
JUL 24...	1200	732	1290	8.4	26.0	8.7	450	100
AUG 13...	1320	970	1300	8.3	25.5	7.5	430	93
SEP 19...	1100	1960	1090	8.2	18.5	8.0	370	87

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 11...	56	130	2	6.4	234	470	66	1.1	13
NOV 07...	57	140	3	6.9	242	520	68	1.1	15
DEC 14...	48	120	2	6.5	220	400	63	1.0	13
JAN 23...	51	130	3	6.9	246	440	70	1.1	14
FEB 23...	47	120	2	5.8	225	430	71	1.0	13
MAR 23...	45	120	3	5.8	213	420	64	1.1	12
APR 24...	28	69	2	5.7	135	260	40	.90	9.8
MAY 30...	17	41	1	3.1	90	150	22	.70	11
JUN 19...	15	37	1	2.7	86	130	18	.60	9.3
JUL 24...	49	110	2	5.7	189	410	42	.90	11
AUG 13...	49	120	3	6.3	176	410	54	1.0	9.6
SEP 19...	38	94	2	5.7	174	310	46	1.0	13

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 11...	1000	1.4	2730	5.5	.480	--	8	16
NOV 07...	1100	1.5	2050	6.0	.560	--	9	20
DEC 14...	890	1.2	3140	5.3	.890	--	18	16
JAN 23...	990	1.3	3290	4.9	.980	--	13	40
FEB 23...	940	1.3	3360	5.5	.910	--	9	13
MAR 23...	910	1.2	1760	4.9	.680	--	3	14
APR 24...	560	.77	6860	2.9	.320	34	61	9
MAY 30...	350	.47	2760	1.7	.220	26	49	6
JUN 19...	310	.42	4330	1.5	.230	63	35	4
JUL 24...	840	1.1	1660	2.7	.260	3.0	7	4
AUG 13...	850	1.2	2220	2.6	.250	<1.0	5	5
SEP 19...	700	.95	3700	3.8	.490	1.3	5	3

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 12...	1230	2060	941	5230	55
MAY 14...	1445	3940	701	7460	66
JUN 11...	1345	2430	234	1540	50
JUL 13...	1045	1150	274	851	86
AUG 13...	1330	909	252	618	39
SEP 20...	1355	1980	203	1090	58

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	954	72	185	725			938		
2	954	98	252	732			1030		
3	938	125	317	811			1140		
4	895	129	312	994			1150		
5	846	117	267	902			1160		
6	909	90	221	783			1050		
7	938	66	167	751			1220		
8	930	65	163	881			1210		
9	923	65	162	994			1270		
10	916	56	138	1040			1310		
11	916	41	101	1100			1280		
12	938	37	94	1120			1240		
13	916	37	92	1130			1240		
14	825	46	102	1110			1230		
15	777	69	145	1080			1220		
16	764	73	151	1020			1160		
17	738	48	96	946			1150		
18	732	29	57	938			1080		
19	738	20	40	954			1040		
20	744	30	60	1080			994		
21	758	28	57	1130			820		
22	770	28	58	1030			870		
23	818	32	71	986			890		
24	758	25	51	930			780		
25	738	82	163	881			810		
26	732	77	152	874			900		
27	818	31	68	744			970		
28	881	30	71	732			1000		
29	902	36	88	930			850		
30	777	35	73	954			890		
31	732	35	69	---			1050		
TOTAL	25975	---	4043	28282			32942		
		JANUARY			FEBRUARY			MARCH	
1	1190			1900			1190		
2	1130			1890			1210		
3	1170			1870			1170		
4	1400			1970			1140		
5	1550			2030			1130		
6	1700			1860			1100		
7	1720			1750			1050		
8	1720			1690			978		
9	1760			1790			946		
10	1600			1800			888		
11	1540			1670			839		
12	1540			1590			818		
13	1420			1530			811		
14	1360			1490			777		
15	1220			1570			732		
16	1180			1770			701		
17	1240			1720			695		
18	1160			1560			701		
19	1160			1420			689		
20	1160			1350			719		
21	1140			1260			707		
22	1200			1240			617		
23	1240			1230			647		
24	1320			1230			770		
25	1440			1210			1060		
26	1520			1220			1050		
27	1600			1220			986		
28	1680			1240			909		
29	1880			1220			804		
30	1900			---			895		
31	1880			---			818		
TOTAL	44720			45290			27547		

PLATTE RIVER BASIN

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	818	---	---	4840	545	7120	2250	365	2220
2	930	---	---	4250	515	5910	2410	380	2470
3	881	---	---	4110	740	8210	2430	685	4490
4	853	---	---	4700	800	10200	3650	600	5910
5	874	---	---	4770	615	7920	3610	395	3850
6	888	---	---	4360	430	5060	3610	270	2630
7	783	---	---	4070	590	6480	3360	235	2130
8	853	---	---	3940	2020	21500	3150	245	2080
9	846	---	---	3690	1160	11600	2930	245	1940
10	1080	---	---	4250	700	8030	2710	240	1760
11	1690	---	---	3730	575	5790	2430	250	1640
12	2080	1010	5670	3550	545	5220	2220	355	2130
13	2450	775	5130	3630	545	5340	2320	460	2880
14	2420	630	4120	3880	615	6440	2460	580	3850
15	2340	605	3820	5020	1000	13600	3590	995	9640
16	2150	545	3160	6820	1430	26300	4090	1020	11300
17	2010	760	4120	8040	1270	27600	4700	855	10800
18	1910	655	3380	8370	815	18400	5180	890	12400
19	1630	400	1760	8440	675	15400	5290	795	11400
20	1900	900	4620	8110	565	12400	5050	635	8660
21	2840	1370	10500	6980	515	9710	4770	465	5990
22	3960	1390	14900	6230	450	7570	4270	385	4440
23	4160	1390	15600	5880	360	5720	3670	325	3220
24	4600	1450	18000	5420	300	4390	3170	275	2350
25	5210	1530	21500	4920	310	4120	2660	230	1650
26	5320	1470	21100	5080	420	5760	1820	210	1030
27	5340	1280	18500	6600	605	10800	1320	202	720
28	5560	1000	15000	5590	415	6260	986	170	453
29	5480	765	11300	4770	370	4770	677	153	280
30	5260	645	9160	3510	360	3410	475	159	204
31	---	---	---	2640	365	2600	---	---	---
TOTAL	77116	---	191340	160190	---	293630	91258	---	124517
		JULY			AUGUST			SEPTEMBER	
1	459	185	229	713	186	358	3360	299	2710
2	717	287	556	1140	312	960	3290	275	2440
3	1140	435	1340	1920	372	1930	3290	262	2330
4	1030	200	556	1700	268	1230	3180	240	2060
5	1110	252	755	1710	239	1100	3120	220	1850
6	811	200	438	1[illegible]20	264	1150	2790	208	1570
7	594	150	241	1630	358	1580	2560	205	1420
8	545	128	188	1540	293	1220	2500	205	1380
9	539	170	247	1460	240	946	2420	185	1210
10	605	400	653	1210	222	725	2420	183	1200
11	611	615	1010	1060	206	590	2350	198	1260
12	1140	465	1430	994	185	497	2230	200	1200
13	1070	363	1050	930	162	407	1970	200	1060
14	1060	303	867	888	132	316	1860	201	1010
15	1260	332	1130	962	108	281	1880	212	1080
16	1520	398	1630	930	103	259	1960	219	1160
17	1130	280	854	902	99	241	2050	202	1120
18	895	192	464	962	106	275	2140	215	1240
19	617	155	258	1020	122	336	2070	218	1220
20	454	135	165	1200	200	648	1970	170	904
21	438	138	163	1700	370	1700	1850	115	574
22	534	198	285	3500	1060	10800	1620	95	416
23	629	205	348	4530	1090	13300	1470	89	353
24	671	238	431	4430	580	6940	1370	88	326
25	738	365	727	4410	363	4320	1310	89	315
26	1250	1020	3460	4700	390	4950	1200	91	295
27	881	682	1750	4740	472	6040	1220	102	336
28	611	250	412	4450	392	4710	1290	128	446
29	539	220	320	4130	340	3790	1320	148	527
30	701	300	568	3790	323	3310	1480	185	739
31	853	330	760	3570	315	3040	---	---	---
TOTAL	25152	---	23285	68441	---	77949	63540	---	33751
YEAR	690453		748515						

06759100 BIJOU CREEK NEAR FORT MORGAN, CO

LOCATION.--Lat 40°16'53", long 103°52'31", in NW¼SE¼ sec.28, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190011, on left bank 1,000 ft downstream from bridge on State Highway 144, 0.8 mi upstream from South Platte River, and 4.0 mi northwest of Fort Morgan.

DRAINAGE AREA.--1,500 mi².

PERIOD OF RECORD.--Streamflow records, December 1976 to current year. Water quality data available October 1976 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 4,302 ft, from topographic map.

REMARKS.--Records fair. Natural flow of stream affected by delivery of stored water from Bijou No. 2 reservoir to South Platte River past the gage, and waste flows from Fort Morgan Canal, which crosses 1.5 mi upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s July 26, 1977, gage height, 6.01 ft, from floodmark, from rating curve extended above 58 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 4.8 ft³/s Oct. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 268 ft³/s at 0400 Apr. 27, gage height, 3.34 ft; minimum daily, 7.1 ft³/s, June 2, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	8.8	10	16	10	11	10	13	7.6	8.0	8.8	9.6
2	9.2	8.8	10	20	10	12	10	13	7.1	8.4	10	10
3	9.6	8.8	11	20	11	12	10	12	7.3	8.4	10	10
4	9.2	8.8	11	20	11	11	10	12	7.3	8.8	9.6	10
5	9.2	8.8	10	20	11	11	10	12	15	8.8	9.2	10
6	9.6	8.8	10	20	11	11	10	12	34	8.8	8.8	9.6
7	9.6	8.8	10	20	11	11	10	12	36	8.4	9.6	10
8	9.6	8.4	10	21	12	11	11	12	36	8.4	9.2	10
9	9.6	8.0	10	20	12	12	11	10	36	8.4	8.8	10
10	10	8.4	10	19	12	12	11	13	36	8.0	8.8	9.6
11	9.6	8.4	10	19	12	11	11	14	20	8.4	8.8	9.6
12	9.6	8.4	10	18	12	11	11	15	10	8.4	8.4	10
13	9.2	8.4	10	16	12	11	11	15	12	8.4	9.6	10
14	8.8	8.8	10	16	13	11	10	15	10	8.4	11	9.6
15	8.8	8.4	9.6	13	13	12	10	28	12	9.2	10	9.6
16	8.8	8.4	9.6	11	13	12	10	27	9.6	8.8	10	10
17	8.8	8.4	9.6	11	12	11	10	15	10	8.8	10	9.6
18	8.8	8.4	9.2	10	12	11	9.6	15	10	8.4	9.2	10
19	8.8	8.4	8.4	10	11	11	10	15	8.8	8.4	9.2	10
20	8.4	8.8	8.4	9.6	11	11	10	14	8.8	8.8	9.6	9.2
21	8.4	8.8	9.0	10	11	11	11	12	8.0	8.4	9.6	13
22	8.4	8.4	9.0	10	11	11	10	12	8.0	8.8	9.6	36
23	8.4	8.8	9.0	10	10	11	10	11	7.3	8.8	10	35
24	8.4	8.8	9.0	10	11	11	10	11	7.3	8.4	9.6	16
25	8.4	9.2	9.0	10	11	11	10	9.2	7.1	8.4	9.2	15
26	8.4	9.2	9.0	10	12	11	62	8.8	7.3	8.4	10	16
27	8.4	9.2	9.0	10	12	10	188	8.4	7.3	8.8	9.6	16
28	8.4	9.2	9.0	10	11	10	95	8.4	8.0	8.4	8.4	15
29	8.8	9.2	9.0	10	11	10	27	8.4	8.0	8.4	8.8	15
30	8.8	10	9.0	10	---	10	13	8.4	8.4	8.4	9.2	15
31	8.8	---	9.0	10	---	10	---	8.0	---	8.8	9.2	---
TOTAL	277.6	262.0	295.8	439.6	332	342	641.6	399.6	410.2	264.4	291.8	388.4
MEAN	8.95	8.73	9.54	14.2	11.4	11.0	21.4	12.9	13.7	8.53	9.41	12.9
MAX	10	10	11	21	13	12	188	28	36	9.2	11	36
MIN	8.4	8.0	8.4	9.6	10	10	9.6	8.0	7.1	8.0	8.4	9.2
AC-FT	551	520	587	872	659	678	1270	793	814	524	579	770

CAL YR 1983 TOTAL 6234.1 MEAN 17.1 MAX 116 MIN 7.3 AC-FT 12370
WTR YR 1984 TOTAL 4345.0 MEAN 11.9 MAX 188 MIN 7.1 AC-FT 8620

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

LOCATION.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel 4 (left channel) 215 ft downstream from bridge, and on right bank of channel 2, 800 ft downstream from bridge on U.S. Highway 385, 0.9 mi southeast of Julesburg, 3.0 mi upstream from Colorado-Nebraska State line, and 8 mi downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-8, 1915-16, and as "at Ovid" 1922-24.

REVISED RECORDS.--WSP 1310: 1902, 1906-7, 1948(P). WSP 1440: 1903-4. WSP 1730: Drainage area.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft, National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of 1,200,000 acres above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--82 years, 532 ft^3/s; 385,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft^3/s, June 20, 1965, gage height, 10.44 ft, from floodmarks in gage well; no flow, Aug. 18-20, 1902, July 25 to Aug. 7, 1903.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, minimum daily, 84 ft^3/s, Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	779	650	800	2100	1220	842	6420	3520	951	126	3150
2	1270	743	550	1000	2200	1230	957	6210	2920	799	115	3020
3	1320	762	600	1200	2200	1260	1070	6070	2500	562	102	2980
4	1340	740	700	1400	2200	1280	1090	5600	2360	400	92	2860
5	1230	725	700	1600	2200	1300	1170	5450	2560	333	84	2790
6	1040	738	750	1600	2300	1280	1220	5920	2830	252	263	2780
7	917	796	800	1600	2300	1250	1320	6070	2710	194	515	2750
8	847	814	900	1800	2300	1190	1380	5680	2780	167	635	2660
9	820	804	1000	2000	2300	1160	1380	5300	2860	148	664	2510
10	824	800	1200	2200	2200	1130	1360	5240	2820	139	653	2460
11	803	831	1400	2200	2100	1120	1340	4940	2810	130	608	2380
12	767	903	1600	2200	2000	1120	1300	5000	2780	126	569	2270
13	761	957	1800	2100	2000	1100	1440	4560	2600	121	529	2130
14	755	1000	1800	1900	2000	1100	1870	4360	2500	111	437	1840
15	758	1020	1790	1800	1900	1120	2320	4320	2440	101	338	1620
16	758	1020	1680	1800	1850	1080	2680	4400	2420	96	253	1510
17	737	1020	1600	1700	1720	1040	2820	4740	2600	100	187	1480
18	706	1020	1400	1100	1680	1020	2800	5300	2960	99	154	1420
19	595	981	1100	700	1700	1030	2700	6570	3260	227	138	1400
20	611	954	1000	800	1620	1050	2880	7100	3570	288	137	1450
21	657	936	900	800	1610	1040	2940	7800	3800	247	163	1480
22	706	930	800	800	1560	1040	3280	7600	3890	191	169	1490
23	720	939	700	900	1510	1070	3670	6900	3870	165	184	1490
24	718	954	600	1100	1430	1010	4410	6120	3830	140	509	1450
25	708	957	600	1400	1360	866	4780	5910	3430	107	1710	1400
26	715	965	600	1700	1330	841	5130	5070	2820	102	2450	1350
27	721	800	650	1800	1290	950	5630	4680	2250	95	2770	1270
28	711	750	650	1900	1250	961	5830	4520	1750	90	3080	1190
29	684	700	650	2000	1240	953	6350	5600	1200	86	3220	1160
30	698	650	700	2100	---	954	6510	4410	945	105	3290	1180
31	743	---	700	2100	---	917	---	4030	---	131	3310	---
TOTAL	25890	25988	30570	48100	53450	33682	82469	171890	83585	6803	27454	58920
MEAN	835	866	986	1552	1843	1087	2749	5545	2786	219	886	1964
MAX	1340	1020	1800	2200	2300	1300	6510	7800	3890	951	3310	3150
MIN	595	650	550	700	1240	841	842	4030	945	86	84	1160
AC-FT	51350	51550	60640	95410	106000	66810	163600	340900	165800	13490	54450	116900

CAL YR 1983 TOTAL 1097975 MEAN 3008 MAX 14300 MIN 400 AC-FT 2178000
WTR YR 1984 TOTAL 648801 MEAN 1773 MAX 7800 MIN 84 AC-FT 1287000

NOTE.--NO GAGE-HEIGHT RECORD DEC. 17 TO FEB. 6.

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1945 to September 1981 (discontinued).
WATER TEMPERATURES: Water years 1945-49, October 1950 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor from July 1973 to September 1979.

REMARKS.--Specific-conductance and temperature data obtained on channel no. 2 (station 06763990).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,270 micromhos Jan. 12, 1971; minimum daily, 348 micromhos Aug. 15, 1968.
WATER TEMPERATURES: Maximum, 36.0°C July 17, 19, 1977, July 16, 1978; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC									
13...	1400	--	1490	8.0	1.0	130	12.0	K40	880
MAR									
22...	1300	1050	1680	8.4	6.5	32	10.5	230	K170
JUN									
18...	1300	3480	863	8.3	24.0	200	7.0	K5200	5000
SEP									
18...	1300	1410	1400	8.2	20.0	70	8.5	260	520

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
DEC										
13...	530	130	50	140	3	8.6	221	490	67	.90
MAR										
22...	630	160	56	160	3	9.3	246	610	79	1.0
JUN										
18...	280	67	26	70	2	5.9	117	240	33	.90
SEP										
18...	490	120	45	120	2	8.3	197	470	60	1.0

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
DEC										
13...	17	1110	1000	1.5	--	4.10	.860	2.9	.790	.360
MAR										
22...	18	1280	1200	1.7	3630	4.40	.020	1.0	.570	.360
JUN										
18...	13	555	530	.75	5210	1.80	.060	2.5	.600	.250
SEP										
18...	15	1020	960	1.4	3880	2.90	.040	1.7	.540	.210

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC								
13...	1400	2	53	<1	<1	<3	8	31
MAR								
22...	1300	2	56	<1	<1	<3	3	4
JUN								
18...	1300	2	51	<1	<1	<3	7	46
SEP								
18...	1300	2	54	<1	<1	<3	5	4

K BASED ON NON-IDEAL COLONY COUNT.

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC							
13...	<2	6	<.1	14	5	<2	14
MAR							
22...	2	4	<.1	<1	4	<1	21
JUN							
18...	<1	27	<.1	2	2	<1	15
SEP							
18...	<1	2	<.1	2	[illegible]	<1	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
DEC										
13...	1400	36	8.8	53	13	<14	18	<12	15	.12
JUN										
18...	1300	--	--	21	46	8.4	25	7.3	22	.09

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC				
13...	1400	--	562	--
MAR				
22...	1300	1050	718	2040
JUN				
18...	1300	3480	2000	18800
SEP				
18...	1300	1410	356	1360

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, NE, Hydrologic Unit 10250002, on right bank 100 ft east of Colorado-Nebraska State line and 9.5 mi upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi^2, approximately, of which about 100 mi^2 contribute directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel-piling control since January 1965. Datum of gage is 3,336.09 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres in Colorado and Nebraska.

AVERAGE DISCHARGE.--54 years, 47.3 ft^3/s; 34,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft^3/s, Apr. 28, 1947, gage height, 5.92 ft, from rating curve extended above 800 ft^3/s, on basis of slope-area measurement of peak flow; no flow, Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft^3/s at 2200 Apr. 21, gage height, 1.63 ft, only peak above base of 130 ft^3/s, maximum gage height, 3.03 ft, Dec. 1 (backwater from ice); minimum daily discharge, 6.9 ft^3/s, Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	27	22	70	66	69	72	92	23	10	12	8.8
2	22	23	40	80	65	70	77	96	24	9.5	14	9.8
3	22	24	46	74	63	71	74	96	23	9.7	12	9.8
4	22	24	44	80	62	71	75	90	21	11	11	8.6
5	22	23	54	86	62	69	80	103	27	10	9.9	7.5
6	22	24	48	74	63	68	80	103	43	9.7	11	6.9
7	22	25	46	61	64	68	79	91	41	11	13	6.9
8	23	31	60	62	62	67	74	83	40	12	13	7.4
9	26	67	62	62	64	67	69	79	41	9.8	12	7.4
10	22	70	70	61	63	68	75	76	39	9.4	11	7.3
11	22	71	64	61	66	71	73	71	40	9.7	11	9.1
12	22	72	62	61	66	73	69	67	28	8.7	11	9.4
13	22	72	62	59	64	69	65	67	29	7.2	9.7	10
14	22	74	61	54	66	66	64	66	30	7.3	9.6	11
15	22	75	60	40	68	62	63	63	30	7.0	9.6	12
16	22	75	58	38	67	64	64	61	28	7.0	11	12
17	22	75	52	41	66	64	63	58	23	7.2	11	14
18	24	76	30	24	64	66	63	56	22	9.5	10	14
19	23	79	31	23	70	70	62	58	24	9.3	10	13
20	23	75	35	35	67	77	91	57	21	9.2	10	14
21	23	75	25	34	66	76	128	56	22	8.4	10	12
22	25	77	18	45	69	71	122	54	19	7.3	10	13
23	24	77	20	54	71	68	102	50	15	7.8	9.5	15
24	26	76	21	64	70	67	92	52	15	8.8	9.1	15
25	25	79	35	80	71	67	89	51	15	8.8	11	16
26	25	70	42	94	72	67	86	53	13	9.0	9.4	17
27	26	45	54	76	71	66	83	54	11	9.8	7.9	18
28	27	30	48	67	68	64	81	51	9.1	9.1	8.8	19
29	26	33	43	72	68	63	87	47	8.6	8.9	8.7	22
30	28	20	45	69	---	64	93	44	11	9.2	8.7	22
31	29	---	52	65	---	70	---	41	---	11	8.3	---
TOTAL	728	1664	1410	1866	1924	2113	2395	2086	735.7	282.3	323.2	367.9
MEAN	23.5	55.5	45.5	60.2	66.3	68.2	79.8	67.3	24.5	9.11	10.4	12.3
MAX	29	79	70	94	72	77	128	103	43	12	14	22
MIN	17	20	18	23	62	62	62	41	8.6	7.0	7.9	6.9
AC-FT	1440	3300	2800	3700	3820	4190	4750	4140	1460	560	641	730

CAL YR 1983 TOTAL 15632.1 MEAN 42.7 MAX 97 MIN 7.3 AC-FT 31010
WTR YR 1984 TOTAL 15895.1 MEAN 43.4 MAX 128 MIN 6.9 AC-FT 31530

BE [illegible] Y AVAILABLE

06826000 BONNY RESERVOIR NEAR HALE, CO

LOCATION.--Lat 39°37'24", long 102°10'26", in SE¼SE¼ sec.9, T.5 S., R.43 W., Yuma County, Hydrologic Unit 10250003, in stair well to outlet conduit of Bonny Dam on South Fork Republican River, 1.7 mi west of Hale, and 3.0 mi downstream from Landsman Creek.

DRAINAGE AREA.--1,820 mi^2, approximately.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1710: 1955.

GAGE.--Water-stage recorder. Datum of gage is at National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1967, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began July 6, 1950; dam completed May 4, 1951. Capacity of reservoir, 170,200 acre-ft, below elevation 3,710 ft, crest of spillway, of which 128,800 acre-ft is for flood control and 39,900 acre-ft is for irrigation. Dead storage, 1,420 acre-ft below elevation 3,635.0 ft, sill of trashrack at outlet conduit. Figures given represent total contents.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,030 acre-ft, May 17, 1957, elevation, 3,678.10 ft; minimum observed since appreciable contents was attained, 22,520 acre-ft, Oct. 6-14, 1952, elevation, 3,661.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,910 acre-ft, Apr. 22, elevation, 3,672.28 ft; minimum, 34,280 acre-ft, Oct. 28, elevation, 3,668.63 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Furnished by U.S. Bureau of Reclamation)

3,665.0	28,460
3,672.8	42,990

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35200	34900	35500	36600	37500	38300	40400	41500	41400	41200	39300	37400
2	35200	35000	35600	36700	37500	38400	40600	41700	41400	41200	39200	37300
3	35200	35000	35600	36700	37500	38400	40800	41600	41300	41200	39400	37200
4	35100	35000	35700	36700	37500	38500	40800	41600	41400	41200	39400	37100
5	35100	35000	35700	36800	37400	38500	40900	41500	41400	41200	39300	37100
6	35100	35000	35700	36800	37400	38600	41100	41500	41400	41100	39300	37000
7	35000	35000	35800	36800	37400	38600	41200	41300	41300	41000	39200	37000
8	35200	35000	35800	36800	37400	38700	41300	41300	41300	41000	39100	36900
9	35200	35000	35900	36900	37400	38700	41400	41300	41300	40900	39000	36800
10	35200	35100	35900	36900	37400	38800	41600	41300	41500	40800	38900	36800
11	35200	35100	36000	37000	37500	38800	41600	41300	41600	40800	38800	36700
12	35100	35100	36000	37000	37500	38900	41700	41400	41600	40700	38800	36700
13	35100	35100	36000	37000	37500	38900	41800	41400	41600	40600	38700	36700
14	35100	35100	36100	37100	37500	39000	41800	41400	41600	40500	38600	36600
15	35100	35100	36100	37200	37500	39000	41800	41400	41600	40400	38600	36500
16	35000	35100	36100	37200	37500	39100	41900	41400	41700	40300	38500	36400
17	35000	35200	36200	37200	37600	39100	41800	41400	41600	40300	38400	36400
18	35000	35200	36200	37200	37800	39300	41600	41500	41600	40200	38300	36400
19	35000	35200	36200	37300	37800	39400	41400	41500	41600	40200	38200	36300
20	35000	35200	36200	37300	37800	39600	41400	41500	41600	40100	38200	36300
21	35000	35200	36200	37400	37900	39600	41900	41400	41600	40000	38100	36200
22	35000	35200	36300	37400	37900	39700	41900	41400	41600	39900	38100	36100
23	35000	35300	36300	37400	38000	39800	41800	41400	41500	39900	38000	36000
24	35000	35300	36300	37500	38000	39900	41700	41400	41500	39800	37900	36000
25	34900	35300	36400	37500	38000	39900	41600	41400	41400	39700	37900	35900
26	34900	35400	36400	37500	38100	40000	41500	41400	41400	39600	37800	35800
27	34900	35500	36400	37500	38200	40100	41300	41300	41400	39600	37700	35700
28	34900	35500	36500	37500	38200	40100	41300	41300	41400	39500	37700	35700
29	34900	35500	36500	37500	38300	40100	41500	41300	41300	39500	37600	35700
30	34900	35500	36500	37500	---	40300	41500	41400	41200	39400	37500	35600
31	34900	---	36600	37500	---	40400	---	41400	---	39300	37400	---
MAX	35200	35500	36600	37500	38300	40400	41900	41700	41700	41200	39400	37400
MIN	34900	34900	35500	36600	37400	38300	40400	41300	41200	39300	37400	35600

WTR YR 1984 MAX 41900 MIN 34900

06826500 SOUTH FORK REPUBLICAN RIVER NEAR HALE, CO

LOCATION.--Lat 39°37'26", long 102°09'47", in SW¼NE¼ sec.15, T.5 S., R.43 W., Yuma County, Hydrologic Unit 10250003, on right bank 0.5 mi downstream from Bonny Dam and 1.2 mi west of Hale.

DRAINAGE AREA.--1,825 mi², approximately.

PERIOD OF RECORD.--October 1946 to September 1948, May 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,610 ft, from topographic map. Oct. 1, 1946, to Sept. 30, 1948, at site 4 mi downstream at different datum.

REMARKS.--Records good. Flow regulated by Bonny Reservoir since July 6,1950 (station 06826000). Many diversions above station for irrigation. Water diverted by Hale ditch from Bonny Reservoir bypasses station (1,650 acre-ft diverted during current year). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Hale ditch diversion records furnished by State Engineer of Colorado.

AVERAGE DISCHARGE.--33 years (water years 1952-84), 19.9 ft³/s; 14,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,790 ft³/s, May 28, 1947, gage height, 4.71 ft, site and datum then in use; maximum gage height, 4.84 ft, Apr. 28, 1947, site and datum then in use; no flow Aug. 11-13, 1947.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred May 31, 1935, stage and discharge not determined. A discharge of 103,000 ft³/s was determined at a site near Newton 5.5 mi upstream, with a drainage area of approximately 1,270 mi².

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft³/s at 2200 Apr. 25, gage height, 5.09 ft; minimum daily, 4.2 ft³/s, Dec. 24, 29, Jan. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.9	8.2	4.7	44	5.6	5.5	85	7.2	7.6	4.9	7.7
2	4.6	5.8	6.6	4.7	44	6.1	6.9	86	7.8	6.3	4.9	7.6
3	4.7	5.9	6.1	4.7	44	6.0	6.6	85	7.5	6.1	5.7	7.0
4	4.8	5.9	6.0	4.7	44	5.6	6.7	84	7.2	8.1	5.3	6.9
5	4.7	5.9	6.0	4.7	44	5.3	7.5	84	7.0	6.9	4.9	6.7
6	4.7	5.9	5.4	5.2	44	5.4	8.2	86	6.8	7.1	5.2	6.4
7	4.7	5.9	5.4	5.2	44	5.5	8.0	85	6.7	7.3	6.7	7.0
8	7.9	6.0	5.5	5.2	44	5.5	6.9	66	6.3	7.3	7.2	8.4
9	5.4	6.1	5.6	5.2	36	5.3	7.0	37	7.2	7.4	7.8	7.8
10	5.3	5.9	5.8	5.2	29	5.3	7.5	25	7.0	7.7	7.9	7.5
11	5.1	5.9	6.0	5.2	29	5.2	6.7	24	10	7.6	8.3	7.5
12	5.0	5.9	6.1	4.7	28	5.3	6.3	22	7.6	7.8	8.2	7.2
13	5.0	5.9	5.5	4.7	28	5.3	6.3	22	7.1	8.0	8.2	7.2
14	5.0	5.9	5.6	4.7	28	5.3	5.9	22	7.0	7.5	8.4	7.4
15	4.8	5.9	5.7	4.7	29	5.1	5.7	23	7.0	7.1	8.4	8.1
16	4.7	5.9	5.4	4.7	28	5.0	5.8	23	6.8	6.8	8.1	7.9
17	4.7	5.9	4.7	4.7	28	5.1	73	24	6.8	7.0	7.2	7.8
18	4.8	6.1	4.7	4.7	33	5.7	115	25	5.6	6.8	7.4	7.5
19	5.0	6.4	4.7	4.7	29	6.6	99	25	5.7	6.8	7.2	7.2
20	5.2	5.9	4.9	4.2	29	7.3	69	27	5.8	6.7	7.2	7.0
21	5.3	5.9	4.5	4.2	20	6.6	71	27	6.1	6.7	7.9	7.0
22	5.3	5.9	4.5	4.2	9.0	5.9	70	27	6.0	6.1	7.7	7.8
23	5.3	5.9	4.4	15	6.7	6.0	89	28	6.3	6.0	7.7	7.7
24	5.1	5.9	4.2	22	5.9	5.9	117	26	6.4	5.5	7.9	7.1
25	5.3	5.9	4.7	22	5.8	5.6	118	26	6.7	5.5	8.7	5.5
26	5.3	5.7	4.7	23	5.6	5.5	120	26	6.8	5.3	8.2	5.3
27	5.5	6.8	4.7	22	5.5	5.2	80	25	7.0	5.4	7.7	5.5
28	5.5	9.2	4.7	23	5.3	5.1	34	24	6.5	5.5	8.0	5.6
29	5.4	7.7	4.2	23	5.6	5.0	21	16	6.5	4.8	7.5	5.3
30	5.9	7.3	4.7	23	---	5.7	61	8.3	6.7	4.7	7.0	5.2
31	5.9	---	4.7	35	---	5.6	---	7.6	---	4.8	6.9	---
TOTAL	160.6	185.1	163.9	312.9	775.4	173.6	1244.5	1200.9	205.1	204.2	224.3	209.8
MEAN	5.18	6.17	5.29	10.1	26.7	5.60	41.5	38.7	6.84	6.59	7.24	6.99
MAX	7.9	9.2	8.2	35	44	7.3	120	86	10	8.1	8.7	8.4
MIN	4.6	5.7	4.2	4.2	5.3	5.0	5.5	7.6	5.6	4.7	4.9	5.2
AC-FT	319	367	325	621	1540	344	2470	2380	407	405	445	416

CAL YR 1983 TOTAL 4251.6 MEAN 11.6 MAX 169 MIN 4.2 AC-FT 8430
WTR YR 1984 TOTAL 5060.3 MEAN 13.8 MAX 120 MIN 4.2 AC-FT 10040

BEST [illegible] AVAILABLE

07079200 LEADVILLE DRAIN AT LEADVILLE, CO

LOCATION.--Lat 39°16'29", long 106°17'15", in SW¼SW¼ sec.12 T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at Parshall flume, 500 ft below Leadville Drainage tunnel, 0.4 mi upstream from mouth and 1.6 mi north of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)
OCT						
03...	1100	3.5	810	7.0	81	35
NOV						
07...	1345	3.9	960	6.9	99	41
DEC						
12...	1130	--	930	7.0	77	43
JAN						
04...	1300	3.5	860	6.9	100	44
FEB						
06...	1100	3.5	870	6.9	100	43
MAR						
05...	1145	3.5	860	7.0	110	51
APR						
02...	1145	--	880	6.9	120	48
MAY						
07...	1045	--	880	6.9	120	48
JUN						
04...	1130	3.3	990	6.7	120	50
JUL						
02...	1100	3.8	910	6.9	90	40
AUG						
06...	1130	4.2	668	6.9	73	33
SEP						
06...	1350	--	646	6.9	69	32

DATE	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT						
03...	7.6	1.2	131	230	1.6	12
NOV						
07...	3.8	1.3	136	250	1.8	5
DEC						
12...	3.2	1.5	136	320	1.8	5
JAN						
04...	2.9	1.4	137	320	1.6	10
FEB						
06...	3.3	1.3	143	350	1.9	5
MAR						
05...	3.2	1.4	145	360	1.8	8
APR						
02...	3.8	1.5	144	370	1.8	4
MAY						
07...	4.2	1.5	134	390	1.9	21
JUN						
04...	3.9	1.5	103	440	1.6	4
JUL						
02...	3.1	1.1	114	310	1.5	7
AUG						
06...	2.8	1.1	127	220	1.3	10
SEP						
06...	2.6	1.0	129	210	1.2	5

07079200 LEADVILLE DRAIN AT LEADVILLE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT						
03...	13	<10	1200	5	1100	2900
NOV						
07...	15	190	1900	10	1700	3500
DEC						
12...	11	<10	2000	7	1800	3500
JAN						
04...	13	<10	2100	7	1800	3600
FEB						
06...	9	<10	2300	4	2000	3700
MAR						
05...	14	<10	2700	11	2200	3800
APR						
02...	10	70	2800	8	2200	3600
MAY						
07...	8	10	2600	4	2300	3600
JUN						
04...	12	40	3000	4	5800	14000
JUL						
02...	30	20	1900	<1	3200	8400
AUG						
06...	21	30	1600	6	1500	2000
SEP						
06...	17	<10	1200	8	1200	3400

07079300 EAST FORK ARKANSAS RIVER AT US HIGHWAY 24, NEAR LEADVILLE, CO--Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 39°16'21", long 106°18'21", in NW¼NW¼ sec 14, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at U. S. highway 24 bridge, 1.6 mi northwest of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT											
03...	1115	263	8.2	29	13	2.4	.9	91	44	.70	7
NOV											
07...	1400	328	8.5	39	16	2.6	1.0	99	74	.90	<1
DEC											
12...	1145	325	8.3	36	17	2.2	1.9	99	73	1.0	<1
JAN											
04...	1330	366	8.0	42	17	1.5	1.0	102	83	.80	<1
FEB											
06...	1115	425	8.3	46	21	2.4	1.0	112	110	1.1	3
MAR											
05...	1200	431	8.1	46	22	2.0	1.0	114	120	1.1	<2
APR											
02...	1200	430	8.4	49	21	2.4	1.1	112	120	1.0	<2
MAY											
07...	1100	418	8.0	50	20	2.4	1.1	104	110	1.0	6
JUN											
04...	1145	126	8.3	14	5.9	1.0	.8	43	18	.50	<1
JUL											
02...	1115	116	8.2	13	5.6	.8	.7	51	13	.50	6
AUG											
06...	1145	141	7.8	14	6.3	1.0	.7	53	16	.30	17
SEP											
06...	1330	194	--	19	8.2	1.4	.8	71	23	<.20	1

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT						
03...	2	<10	200	5	150	350
NOV						
07...	3	80	550	4	280	590
DEC						
12...	2	<10	360	4	300	680
JAN						
04...	3	<10	330	2	350	680
FEB						
06...	3	<10	490	6	480	920
MAR						
05...	4	<10	730	5	540	920
APR						
02...	2	60	500	1	520	860
MAY						
07...	2	10	950	17	550	860
JUN						
04...	1	10	890	17	150	280
JUL						
02...	<1	<10	340	8	70	140
AUG						
06...	2	20	860	16	110	160
SEP						
06...	1	20	<10	19	80	180

07082400 TURQUOISE LAKE NEAR LEADVILLE, CO

LOCATION.--Lat 39°15'10", long 106°22'26", in SW¼NE¼ sec.19, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, in control house of Sugar Loaf Dam on Lake Fork, 4.0 mi west of Leadville and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi^2.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,754.00 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir formed by earthfill dam completed in 1909, capacity,17,400 acre-ft. Enlargement of dam began Dec. 8, 1965, and closure was made Apr. 15, 1968. Enlarged capacity, 129,400 acre-ft at elevation 9,869.4 ft, crest of spillway. Dead storage, 2,770 acre-ft below elevation 9,765.90 ft, sill of lowest outlet. Figures given are total contents. Since Apr. 15,1968, Turquoise Lake has been a regulatory reservoir for the Fryingpan-Arkansas project and stores water imported from the Colorado River basin through Charles H. Boustead Tunnel for irrigation, municipal water supply, and power development. It also stores water for industrial use, and water imported from the Colorado River basin through Busk-Ivanhoe tunnel for irrigation and through Homestake tunnel for municipal water supply.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES (at 0800 of following day) FOR PERIOD OF RECORD.--Maximum contents, 131,820 acre-ft, July 10, 1983, elevation, 9,870.73 ft; minimum since appreciable storage was attained, 14,510 acre-ft, Oct. 1, 1968, elevation, 9,782.85 ft.

EXTREMES (at 0800 of the following day) FOR CURRENT YEAR.--Maximum contents, 129,790 acre-ft, Aug. 21, elevation, 9,869.60 ft; minimum, 71,310 acre-ft, May 19, elevation, 9,834.18 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,867.92	126,790	-
Oct. 31	9,867.53	126,100	-690
Nov. 30	9,863.16	118,420	-7,680
Dec. 31	9,854.18	103,080	-15,340
CAL YR 1983			+15,460
Jan. 31	9,850.84	97,520	-5,560
Feb. 29	9,849.15	94,740	-2,780
Mar. 31	9,849.23	94,870	+130
Apr. 30	9,841.64	82,700	-12,170
May 31	9,845.23	88,390	+5,690
June 30	9,866.92	125,020	+36,630
July 31	9,868.72	128,220	+3,200
Aug. 31	9,868.41	127,660	-560
Sept. 30	9,868.47	127,770	+110
WTR YR 1984			+980

BEST CO[illegible]ILABLE

07083000 HALFMOON CREEK NEAR MALTA, CO

(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'19", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, Hydrologic Unit 11020001, on right bank 1.4 mi upstream from culvert, 3.3 mi upstream from mouth, and 4.3 mi southwest of Malta.

DRAINAGE AREA.--23.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WSP 2121: Drainage area at site 1.4 mi downstream. WRD Colo. 1968: 1967 (M). WRD CO-79-1: 1976 (M). WRD CO-80-1: 1954 (M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,830 ft, from topographic map. Prior to Oct. 19, 1966, at sites 1.4 mi downstream at different datums.

REMARKS.--Records good except those for winter period and those above 300 ft³/s, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--38 years, 29.0 ft³/s; 21,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 615 ft³/s, June 30, 1984, gage height, 3.77 ft, from rating curve extended above 300 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24	1930	231	3.17	June 30	2330	*615	3.77
May 30	2230	227	3.16	July 10	0530	474	3.59
June 15	1800	285	3.28	July 14	2230	212	3.12
June 21	1800	353	3.40	July 29	2300	215	3.13

Minimum daily discharge, 2.1 ft³/s, Mar. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.5	7.2	5.3	3.3	2.9	2.7	5.1	172	383	103	56
2	13	9.5	7.0	5.8	3.5	2.9	2.6	5.1	160	317	86	51
3	13	9.2	7.0	6.3	3.5	2.9	2.6	4.9	153	285	76	46
4	14	9.2	6.5	6.3	3.5	2.4	2.9	4.9	137	260	73	42
5	13	8.8	6.0	6.3	3.5	2.7	3.2	5.1	119	239	70	39
6	13	8.8	6.0	5.8	3.5	2.7	3.3	4.9	101	227	94	36
7	12	8.8	6.3	6.6	3.3	2.7	3.2	4.6	93	206	88	37
8	12	8.6	7.0	6.1	2.9	2.7	3.2	4.9	79	212	86	34
9	11	8.2	7.5	5.7	3.3	2.7	3.2	6.1	70	265	95	32
10	12	8.0	8.0	5.0	3.5	2.7	3.3	9.0	69	341	85	30
11	12	7.8	8.0	4.5	3.7	2.7	3.5	14	80	219	71	29
12	12	7.5	8.0	4.5	3.7	2.7	3.6	22	100	175	71	29
13	12	7.5	7.6	4.5	3.5	2.6	3.7	34	139	159	68	27
14	13	7.4	7.3	4.2	3.7	2.4	3.8	48	187	185	63	26
15	12	8.0	7.2	4.0	3.5	2.6	3.8	63	226	169	61	26
16	11	9.0	7.0	3.8	3.3	2.4	4.3	73	216	155	68	29
17	12	8.6	6.5	3.6	3.3	2.3	5.3	64	178	139	73	26
18	11	8.2	6.0	3.5	3.3	2.4	6.1	63	192	121	81	24
19	11	7.7	5.5	3.5	3.2	2.1	6.1	60	205	121	71	25
20	11	7.5	5.0	3.5	3.2	2.1	5.6	78	219	127	73	24
21	10	7.3	4.7	3.5	3.2	2.9	5.5	108	276	123	82	25
22	10	7.0	4.5	3.5	3.3	2.7	5.4	134	301	117	94	25
23	10	7.0	4.5	3.5	3.2	2.7	5.6	156	281	103	82	24
24	9.9	7.0	4.8	3.5	3.2	2.8	6.4	176	264	97	83	22
25	9.5	7.5	5.2	3.5	3.2	2.4	6.1	178	255	99	86	22
26	9.5	8.0	5.2	3.5	3.2	2.7	5.9	158	252	94	80	21
27	9.5	8.0	5.0	3.5	2.9	2.4	5.6	159	249	89	69	21
28	9.5	8.0	4.6	3.5	2.9	3.0	4.2	153	248	91	62	21
29	9.5	8.7	4.6	3.5	2.9	2.9	5.6	165	296	95	57	19
30	9.5	8.5	4.8	3.5	---	2.9	5.6	177	374	129	55	19
31	9.5	---	5.0	3.4	---	2.9	---	185	---	97	53	---
TOTAL	349.4	244.8	189.5	137.2	96.2	81.9	131.9	2322.6	5691	5439	2359	887
MEAN	11.3	8.16	6.11	4.43	3.32	2.64	4.40	74.9	190	175	76.1	29.6
MAX	14	9.5	8.0	6.6	3.7	3.0	6.4	185	374	383	103	56
MIN	9.5	7.0	4.5	3.4	2.9	2.1	2.6	4.6	69	89	53	19
AC-FT	693	486	376	272	191	162	262	4610	11290	10790	4680	1760

CAL YR 1983 TOTAL 13788.8 MEAN 37.8 MAX 275 MIN 2.6 AC-FT 27350
WTR YR 1984 TOTAL 17929.5 MEAN 49.0 MAX 383 MIN 2.1 AC-FT 35560

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- November 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1967 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 16, 1980; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 05...	1600	16	60	7.0	10.0	5.6	--	--
JAN 25...	1430	3.6	100	7.2	.0	12.2	<1	--
MAY 30...	1230	154	60	7.2	6.0	9.3	<1	<1
AUG 08...	1200	80	65	7.3	9.0	8.0	K2	K10

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 05...	40	10	3.7	1.6	.1	.80	41	6.1	.40
JAN 25...	42	10	4.1	1.9	.1	.60	43	5.9	.40
MAY 30...	27	6.6	2.5	1.0	.0	.70	22	5.4	.40
AUG 08...	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT 05...	<.10	5.6	55	53	.07	2.4	.14	.010	<.010
JAN 25...	.10	6.4	51	56	.07	.50	.18	<.010	.020
MAY 30...	<.10	4.3	43	35	.06	18	.10	.010	.020
AUG 08...	--	--	--	--	--	--	.17	.010	.010

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
JAN 25...	1430	1	29	<.5	4	<1	<3	2	52	3
MAY 30...	1230	<1	26	<1	2	<1	<3	3	180	7

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN 25...	6	9	.1	<10	<1	<1	80	<6	13
MAY 30...	5	12	<.1	<10	<1	<1	43	<6	18

K BASED ON NON-IDEAL COLONY COUNT.

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
JAN										
25...	1430	.3	<1.2	.4	1.0	.4	.8	<.4	.08	.10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG				
08...	1200	80	5	1.1

07083700 ARKANSAS RIVER NEAR MALTA, CO

LOCATION.--Lat 39°10'08", long 106°19'23", in NE¼NW¼ sec.22, T.10 S., R.80 W., Lake County, Hydrologic Unit 11020001, on left bank 40 ft downstream and 30 ft shoreward of left end of bridge on U.S. Highway 24, 3.5 mi downstream from Lake Fork, 4.4 mi southeast of Malta, and 5.7 mi south of Leadville.

DRAINAGE AREA.--228 mi^2.

PERIOD OF RECORD.--October 1964 to September 1967, October 1974 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,300 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Flow regulated by Turquoise Lake (station 07082400) on Lake Fork 8 mi upstream. Transmountain diversions from Colorado River basin to Arkansas River basin enter upstream from this station (see elsewhere in this report). Diversions for irrigation of about 5,600 acres above station. Diversions from Colorado River basin to Lake Creek basin above station through Homestake tunnel began in May 1967 and through Charles H. Boustead tunnel in May 1972; since June 1981, this imported water has been diverted from Turquoise Lake through Mt. Elbert conduit, bypassing this station. Most of the natural flow of Lake Fork and Halfmoon Creek has also been diverted through Mt. Elbert conduit since June 1981, and returned to the river below this station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1975-84), 248 ft^3/s; 179,700 acre-ft/yr, subsequent to enlarging Turquoise Lake in 1968.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 2,200 ft^3/s, May 12, 1980, gage height, about 5.4 ft, from rating curve extended above 1,900 ft^3/s; minimum daily, 40 ft^3/s, Oct. 11, 12, 16-20, 1974, Dec. 7-12, Dec. 25, 1976, to Jan. 15, 1977, Jan. 25 to Feb. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 1,500 ft^3/s, July 1, gage height, unknown; minimum daily, 52 ft^3/s, Dec. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	85	58	70	60	90	80	72	1250	1500	620	340
2	103	85	57	70	60	90	80	72	1220	1350	540	303
3	103	84	56	69	60	90	78	72	1180	1280	460	266
4	109	82	54	68	60	90	78	72	1050	1200	480	245
5	107	82	52	68	60	90	78	72	1000	1100	510	227
6	104	81	56	67	60	90	78	72	970	980	550	198
7	99	80	64	66	60	90	78	76	960	860	470	197
8	98	90	70	66	60	90	78	84	950	920	408	199
9	98	77	74	65	60	89	78	123	920	1000	405	195
10	99	81	69	64	60	86	78	163	840	1200	370	190
11	107	87	73	63	60	84	79	185	840	1100	332	188
12	105	86	68	62	60	82	80	230	840	900	327	182
13	102	87	65	61	62	78	80	280	860	820	372	180
14	112	77	63	60	66	76	80	350	900	860	384	178
15	111	79	62	58	70	74	80	450	980	820	374	176
16	101	79	70	58	71	74	80	580	1300	780	406	195
17	100	78	78	58	72	72	84	800	1200	750	411	185
18	102	75	80	58	72	72	90	820	1100	710	439	180
19	101	72	80	56	76	71	95	750	1160	670	452	180
20	99	75	80	56	82	72	95	790	1140	640	563	180
21	95	72	79	56	88	76	94	840	1200	610	664	178
22	92	68	78	58	89	80	94	920	1200	580	729	172
23	91	70	78	59	90	80	92	1000	1190	560	604	170
24	91	72	77	60	90	80	92	1100	1180	580	647	168
25	91	71	76	62	90	80	90	1300	1120	610	625	162
26	89	63	75	60	90	80	86	1200	1120	640	585	160
27	88	62	74	59	90	80	80	1180	1120	660	526	155
28	88	60	74	58	90	80	74	1170	1120	610	467	152
29	86	60	73	58	90	80	72	1160	1200	580	417	150
30	88	58	72	60	---	80	72	1200	1300	620	353	148
31	87	---	71	60	---	80	---	1250	---	620	298	---
TOTAL	3051	2278	2156	1913	2098	2526	2473	18433	32410	26110	14788	5799
MEAN	98.4	75.9	69.5	61.7	72.3	81.5	82.4	595	1080	842	477	193
MAX	112	90	80	70	90	90	95	1300	1300	1500	729	340
MIN	86	58	52	56	60	71	72	72	840	560	298	148
AC-FT	6050	4520	4280	3790	4160	5010	4910	36560	64280	51790	29330	11500

CAL YR 1983 TOTAL 105707 MEAN 290 MAX 1680 MIN 52 AC-FT 209700
WTR YR 1984 TOTAL 114035 MEAN 312 MAX 1500 MIN 52 AC-FT 226200

NOTE.--NO GAGE-HEIGHT RECORD FEB. 1 TO MAY 8, MAY 31 TO AUG. 7.

07084500 LAKE CREEK ABOVE TWIN LAKES RESERVOIR, CO

LOCATION.--Lat 39°03'47", long 106°24'26", Lake County, Hydrologic Unit 11020001, on left bank 1.2 mi upstream from water line of Twin Lakes Reservoir at elevation 9,200 ft and 1.9 mi southwest of village of Twin Lakes.

DRAINAGE AREA.--75 mi².

PERIOD OF RECORD.--April 1946 to September 1962, October 1963 to current year. Monthly discharge only for some periods, published in WSP 1241, 1311, and 1731.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1711: 1951(M), 1952.

GAGE.--Water-stage recorder. Altitude of gage is 9,310 ft, from topographic map. Prior to May 20, 1950, at site 190 ft downstream, at different datum. May 20, 1950, to Apr. 7, 1953, at site 10 ft upstream, at present datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Records include inflow from Roaring Fork River in Colorado River basin through Twin Lakes tunnel (see elsewhere in this report).

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--37 years (water years 1947-62, 1964-84), 168 ft³/s; 121,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,270 ft³/s, June 15, 1978, gage height, 5.08 ft, from rating curve extended above 1,400 ft³/s; minimun not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s at 2130 June 3, gage height, 3.95 ft; minimum daily, 10 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	50	23	21	12	13	13	15	748	792	357	209
2	38	21	22	15	11	[illegible]	12	16	680	732	318	182
3	36	20	22	13	10	[illegible]	12	13	624	718	294	128
4	38	19	23	14	11	11	13	15	539	652	283	131
5	38	20	18	16	11	10	14	16	485	604	260	120
6	36	19	16	16	12	11	14	16	400	584	290	113
7	33	18	20	15	11	12	13	15	357	552	268	109
8	36	20	23	14	11	13	14	15	290	564	257	113
9	58	17	20	14	10	13	14	18	250	617	257	120
10	35	18	23	12	11	14	15	27	232	732	242	86
11	35	19	21	12	11	13	15	42	253	578	209	68
12	35	21	20	13	10	14	14	64	298	485	184	69
13	33	21	17	13	10	15	12	90	370	437	187	82
14	36	19	16	14	11	15	11	133	497	509	176	86
15	35	24	16	14	11	15	10	209	584	473	176	89
16	38	25	24	13	12	16	10	268	604	425	199	100
17	81	24	22	12	12	14	13	279	527	385	222	75
18	53	28	19	10	11	12	15	279	533	344	236	56
19	31	27	22	11	10	12	16	260	584	334	218	54
20	30	26	21	10	11	13	16	322	610	330	202	52
21	32	27	16	11	14	12	14	437	680	467	215	56
22	68	27	15	12	13	11	13	533	725	449	253	59
23	58	25	16	11	12	10	14	617	688	410	264	55
24	57	22	17	10	12	10	17	718	702	395	242	54
25	50	30	23	12	13	11	17	770	702	334	242	51
26	53	29	26	13	13	10	16	695	710	310	222	50
27	50	24	21	11	12	11	15	688	710	302	218	49
28	34	21	16	11	12	11	14	702	710	330	212	54
29	24	22	14	12	13	12	14	725	762	322	176	107
30	24	22	16	13	---	11	15	792	815	357	135	86
31	31	---	19	13	---	13	---	800	---	330	131	---
TOTAL	1278	705	607	401	333	383	415	9589	16669	14853	7145	2663
MEAN	41.2	23.5	19.6	12.9	11.5	12.4	13.8	309	556	479	230	88.8
MAX	81	50	26		14	16	17	300	815	792	357	209
MIN	24	17	14	10	10	10	10	13	232	302	131	49
AC-FT	2530	1400	1200	795	661	760	823	19020	33060	29460	14170	5280

CAL YR 1983 TOTAL 72885.5 MEAN 200 MAX 1940 MIN 6.0 AC-FT 144600
WTR YR 1984 TOTAL 55041.0 MEAN 150 MAX 815 MIN 10 AC-FT 109200

NOTE.-- NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 15.

07086000 ARKANSAS RIVER AT GRANITE, CO

LOCATION.--Lat 39°02'34", long 106°15'55", in SE¼SW¼ sec.31, T.11 S., R.79 W., Chaffee County, Hydrologic Unit 11020001, on right bank at Granite, 100 ft east of U.S. Highway 24,100 ft downstream from county bridge, and 200 ft upstream from Cache Creek.

DRAINAGE AREA.--427 mi².

PERIOD OF RECORD.--April to October 1895, May to December 1897, August to September 1898, March to October 1899, April to May 1901 (gage heights and discharge measurements only in 1895, 1899, and 1901), April 1910 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1711: 1952, 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 8,914.86 ft, National Geodetic Vertical Datum of 1929, supplementary adjustment of 1960. Prior to Apr. 6, 1910, nonrecording gages near present site at different datums. Apr. 6, 1910, to Oct. 25, 1917, water-stage recorder or nonrecording gage at site 832 ft upstream, at different datum. Oct. 26, 1917, to Oct. 26, 1960, water-stage recorder at site 168 ft downstream, at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 6,700 acres. Turquoise Lake and Twin Lakes Reservoir, on tributaries above station, have a combined capacity of 269,700 acre-ft. Transmountain diversions from Colorado River basin to Arkansas River basin enter above this station (see elsewhere in this report).

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--74 years (water years 1911-84), 382 ft³/s; 276,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 5,360 ft³/s, June 28, 1957, gage height, 7.20 ft; minimum not determined.

EXTREME FOR CURRENT YEAR.--Maximum discharge, 3,060 ft³/s at 1430 May 25, gage height, 5.53 ft; minimum daily, 75 ft³/s, Jan 19-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	125	110	100	85	90	105	849	2850	2700	1400	1050
2	187	125	105	100	85	90	109	1010	2780	2600	1300	1020
3	184	120	105	100	80	90	109	1140	2700	2400	1300	975
4	184	120	105	100	80	85	112	1140	2640	2200	1300	948
5	182	120	100	100	80	85	118	1140	2430	2050	1250	858
6	176	120	100	100	80	85	118	1150	2220	1850	1250	678
7	155	118	100	95	80	85	118	1140	1940	1600	1200	510
8	145	120	100	95	85	85	125	1140	1530	1550	1200	510
9	150	110	105	95	85	90	127	1040	1310	1700	1150	492
10	155	110	105	95	85	90	127	957	1090	2000	1100	432
11	160	120	105	95	85	90	129	1020	1070	2000	1060	355
12	160	120	100	95	85	95	118	1050	1080	1750	1030	350
13	155	120	95	90	85	95	116	1090	1250	1480	1030	345
14	160	115	90	85	90	95	310	1380	1660	1480	1050	290
15	140	115	95	80	90	100	486	1870	2160	1500	1230	340
16	134	110	100	80	90	100	517	1910	2710	1440	1470	375
17	131	110	110	80	90	105	538	1940	2730	1470	1440	396
18	131	105	115	80	90	110	545	1870	2300	1400	1440	390
19	129	100	115	75	95	115	669	1620	2160	1320	1300	385
20	131	105	110	75	95	120	738	1620	2180	1340	1260	396
21	127	100	105	75	95	115	486	1860	2260	1460	1330	370
22	123	95	105	75	95	110	480	1980	2420	1550	1360	365
23	120	95	100	80	95	110	498	2200	2500	1520	1160	375
24	125	95	100	80	90	115	510	2510	2380	1480	1290	278
25	131	100	100	80	90	110	524	2940	2340	1490	1400	295
26	125	100	100	80	90	105	504	2870	2340	1460	1340	290
27	125	100	100	80	90	105	474	2590	2370	1400	1250	282
28	129	105	100	80	90	105	462	2400	2270	1400	1220	282
29	127	110	105	85	90	105	462	2240	2300	1400	1180	286
30	127	110	105	85	---	105	545	2510	2400	1450	1100	274
31	127	---	105	85	---	105	---	2850	---	1450	1010	---
TOTAL	4525	3318	3195	2700	2545	3090	10279	53026	64370	51890	38400	14192
MEAN	146	111	103	87.1	87.8	99.7	343	1711	2146	1674	1239	473
MAX	190	125	115	100	95	120	738	2940	2850	2700	1470	1050
MIN	120	95	90	75	80	85	105	849	1070	1320	1010	274
AC-FT	8980	6580	6340	5360	5050	6130	20390	105200	127700	102900	76170	28150

CAL YR 1983 TOTAL 213379 MEAN 585 MAX 3370 MIN 90 AC-FT 423200
WTR YR 1984 TOTAL 251530 MEAN 687 MAX 2940 MIN 75 AC-FT 498900

NOTE.--NO GAGE-HEIGHT RECORD JAN. 1 TO FEB. 1.

07089000 COTTONWOOD CREEK BELOW HOT SPRINGS, NEAR BUENA VISTA, CO

LOCATION.--Lat 38°48'46", long 106°13'18", in SE¼SE¼ sec.21, T.14 S., R.79 W., Chaffee County, Hydrologic Unit 11020001, on left bank 0.2 mi downstream from Cottonwood Hot Springs, 0.9 mi downstream from confluence of Middle Cottonwood and South Cottonwood Creeks, 2.9 mi upstream from North Cottonwood Creek, and 5.5 mi southwest of Buena Vista.

DRAINAGE AREA.--65.0 mi².

PERIOD OF RECORD.--October 1910 to September 1923, August 1949 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: 1915, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,532 ft, from river-profile survey. Prior to Oct. 1, 1923, nonrecording gage near present site at different datum.

REMARKS.--Records good. Several small diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--48 years (water years 1911-23, 1950-84), 55.6 ft³/s; 40,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s, July 1, 1957, gage height, 4.52 ft, from floodmarks, from rating curve extended above 690 ft³/s; minimum observed, 10 ft³/s, Mar. 20-23, 25, Apr. 9, 19, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 30	0400	311	2.59	June 26	1130	339	2.82
June 2	0830	308	2.60	July 1	0400	*363	2.90
June 16	0900	323	2.72				

Minimum daily discharge, 15 ft³/s, May 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	34	28	25	21	20	19	20	280	322	100	91
2	41	34	28	24	21	20	19	20	282	286	94	87
3	39	33	28	24	21	20	19	20	257	271	85	80
4	42	32	28	24	21	19	19	20	235	260	87	76
5	43	32	27	24	21	20	19	20	217	238	92	74
6	42	32	26	24	21	20	19	20	188	226	102	71
7	41	32	28	24	21	19	19	20	181	221	99	66
8	40	32	28	24	21	20	19	17	142	210	92	64
9	40	28	27	24	21	19	20	15	140	212	93	61
10	39	29	27	23	21	19	19	22	149	225	85	56
11	40	32	27	24	21	19	20	33	158	209	80	50
12	40	31	27	23	20	19	19	48	172	187	82	48
13	39	31	26	23	21	19	19	68	196	173	106	44
14	40	30	26	24	21	19	19	81	246	169	110	42
15	40	27	26	23	21	19	20	98	280	164	97	38
16	38	30	25	23	20	20	21	102	310	162	105	37
17	39	30	26	23	21	19	22	105	277	151	84	36
18	40	31	26	22	20	19	24	122	258	142	66	36
19	39	28	25	22	20	19	23	96	276	133	58	33
20	38	28	26	23	20	19	22	127	272	131	55	33
21	37	30	25	22	20	20	20	165	282	124	70	31
22	37	27	25	22	20	21	20	213	296	119	82	30
23	36	25	26	22	20	20	21	232	295	115	102	28
24	36	25	26	22	20	19	21	254	300	116	105	27
25	35	28	26	22	20	19	21	260	310	116	108	26
26	35	27	26	22	20	19	20	233	323	109	104	25
27	35	27	26	21	20	20	19	263	294	106	98	25
28	35	27	25	21	20	19	19	257	285	104	97	26
29	34	27	24	21	20	19	20	265	274	104	93	25
30	34	27	25	21	---	19	20	283	295	113	88	23
31	34	---	25	21	---	19	---	275	---	108	87	---
TOTAL	1191	886	814	707	595	601	601	3774	7470	5326	2806	1389
MEAN	38.4	29.5	26.3	22.8	20.5	19.4	20.0	122	249	172	90.5	46.3
MAX	43	34	28	25	21	21	24	283	323	322	110	91
MIN	34	25	24	21	20	19	19	15	140	104	55	23
AC-FT	2360	1760	1610	1400	1180	1190	1190	7490	14820	10560	5570	2760

CAL YR 1983 TOTAL 20957 MEAN 57.4 MAX 428 MIN 15 AC-FT 41570
WTR YR 1984 TOTAL 26160 MEAN 71.5 MAX 323 MIN 15 AC-FT 51890

07093700 ARKANSAS RIVER NEAR WELLSVILLE, CO

LOCATION.--Lat 38°30'10", long 105°56'21", in SW¼NE¼ sec.14, T.49 N., R.9 E., Chaffee County, Hydrologic Unit 11020001, on right bank 50 ft upstream from Chaffee-Fremont County line, 2.0 mi northwest of Wellsville, 2.8 mi downstream from South Arkansas River, and 3.5 mi southeast of Salida.

DRAINAGE AREA.--1,485 mi^2.

PERIOD OF RECORD.--April 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,883.4 ft, National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 26,000 acres, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey).

AVERAGE DISCHARGE.--23 years, 721 ft^3/s; 522,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s, June 12, 1980, gage height, 8.02 ft; minimum daily, 110 ft^3/s, Jan. 12, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,040 ft^3/s at 1100 May 25, gage height, 7.64; minimum daily, 258 ft^3/s, Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	728	340	425	375	315	287	319	915	4400	3030	2050	1760
2	722	350	440	355	307	279	311	1020	4280	3220	1930	1570
3	704	350	444	340	307	295	299	1210	4090	3480	1890	1490
4	692	345	436	370	307	279	303	1200	3910	3580	1840	1440
5	680	340	426	375	295	268	335	1210	3560	3320	1720	1380
6	650	340	375	365	303	258	351	1200	3190	2560	1800	1250
7	620	340	410	365	287	279	327	1190	3080	2410	1940	1200
8	570	350	426	365	307	295	307	1180	2570	2490	1860	1140
9	530	360	426	370	291	307	327	1190	2280	2780	1770	1120
10	400	345	413	350	295	311	323	1020	1990	3290	1610	1070
11	343	360	413	350	303	307	327	1080	1890	3300	1530	806
12	355	365	413	331	270	291	311	1160	1890	2870	1470	752
13	351	375	404	323	290	291	299	1220	2060	2590	1500	716
14	347	380	391	345	300	295	295	1390	2690	2320	1480	692
15	367	360	390	330	290	303	566	1910	3300	2420	1500	665
16	355	365	380	310	280	319	655	2170	4000	2270	1850	665
17	323	375	380	300	290	355	670	2220	4040	2200	2040	675
18	323	390	390	305	280	331	704	2280	3690	2210	2150	665
19	323	380	395	310	270	307	710	1990	3380	1980	2220	660
20	323	365	385	315	260	303	914	1980	3400	2000	1830	645
21	323	410	355	315	280	315	746	2310	3680	2000	1960	640
22	319	405	380	320	280	343	655	3180	3560	2140	2080	605
23	311	375	380	320	295	327	650	3590	3420	2050	2040	600
24	311	360	350	330	275	323	675	4200	3450	2040	2200	600
25	311	390	370	340	295	335	686	4880	3840	2050	2170	570
26	335	395	385	340	287	307	692	4760	4180	2080	2270	540
27	325	380	400	331	268	319	655	4520	4160	2020	2160	540
28	330	400	383	343	264	295	655	4320	3930	2020	2060	540
29	330	400	330	339	287	299	660	3980	3540	2020	1970	550
30	330	420	340	327	---	319	675	3980	3400	2110	1910	550
31	340	---	375	307	---	311	---	4200	---	2110	1760	---
TOTAL	13271	11110	12210	10461	8378	9453	15402	72655	100850	76960	58560	26096
MEAN	428	370	394	337	289	305	513	2344	3362	2483	1889	870
MAX	728	420	444	375	315	355	914	4880	4400	3580	2270	1760
MIN	311	340	330	300	260	258	295	915	1890	1980	1470	540
AC-FT	26320	22040	24220	20750	16620	18750	30550	144100	200000	152700	116200	51760

CAL YR 1983 TOTAL 346252 MEAN 949 MAX 5400 MIN 208 AC-FT 686800
WTR YR 1984 TOTAL 415406 MEAN 1135 MAX 4880 MIN 258 AC-FT 824000

NOTE.--NO GAGE-HEIGHT RECORD OCT. 27 TO NOV. 28.

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°39'25", long 105°48'45", in SE¼NE¼ sec.24, T.51 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 0.4 mi downstream from County Road 2, 0.7 mi upstream from Steer Creek, 14.0 mi north of Howard, and 14.3 mi upstream from mouth.

DRAINAGE AREA.--106 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,780 ft, from topographic map.

REMARKS.--Records good except those between 20 ft³/s, and 250 ft³/s, which are fair, and those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft³/s, Aug. 14, 1983, gage height, 8.22 ft, result of indirect determination of peak flow; minimum daily, 2.8 ft³/s, Jan. 29 to Mar. 2, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 12	2000	37	5.25	Aug. 18	2300	a*112	5.96

Minimum daily discharge, 2.8 ft³/s, Jan. 29 to Mar. 2.
a-From rating curve extended above 7.7 ft³/s, on basis of slope-area measurement of peak flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.2	3.4	3.1	2.8	2.8	3.6	8.8	7.6	5.2	4.8	4.0
2	4.6	4.1	3.3	3.1	2.8	2.8	3.6	9.6	7.6	5.0	4.6	4.0
3	4.6	4.2	3.2	3.1	2.8	2.9	3.8	8.9	7.0	4.8	4.6	4.2
4	4.6	4.1	3.2	3.0	2.8	3.0	4.5	8.7	6.6	4.8	4.5	4.3
5	4.6	4.0	3.2	3.0	2.8	3.0	6.0	8.8	6.5	4.8	4.5	4.2
6	4.6	3.9	3.2	3.0	2.8	3.0	8.0	9.2	6.2	4.6	4.5	4.2
7	4.5	3.9	3.2	3.0	2.8	3.0	11	9.0	6.2	4.5	4.5	4.0
8	4.5	3.9	3.2	3.0	2.8	3.0	11	8.5	6.3	4.4	4.5	4.0
9	4.4	4.0	3.2	3.0	2.8	3.0	12	9.3	6.3	4.4	4.5	4.0
10	4.5	4.1	3.2	3.0	2.8	3.0	12	13	6.2	4.5	4.5	4.0
11	4.5	4.0	3.2	3.0	2.8	3.0	12	19	6.2	4.6	4.4	3.9
12	4.5	3.9	3.2	3.0	2.8	3.0	12	19	6.0	4.2	4.3	3.9
13	4.5	3.8	3.2	3.0	2.8	3.0	10	16	5.9	4.2	4.9	3.9
14	4.6	3.9	3.2	2.9	2.8	3.0	10	15	5.9	4.2	4.6	3.8
15	4.5	3.7	3.2	2.9	2.8	3.0	9.7	13	5.8	4.1	4.2	3.9
16	4.5	3.6	3.2	2.9	2.8	3.0	9.7	11	5.7	4.1	3.8	3.9
17	4.4	3.6	3.1	2.9	2.8	3.0	10	9.5	5.7	4.2	3.8	4.0
18	4.4	3.5	3.1	2.9	2.8	3.0	10	9.1	5.6	4.3	8.3	4.0
19	4.4	3.5	3.1	2.9	2.8	3.1	10	9.1	5.8	4.3	19	3.9
20	4.3	3.5	3.1	2.9	2.8	3.1	9.7	8.9	5.8	4.2	7.1	4.0
21	4.3	3.5	3.1	2.9	2.8	3.1	9.6	8.6	5.7	4.2	6.7	4.0
22	4.3	3.5	3.1	2.9	2.8	3.2	9.5	8.3	5.8	4.3	6.0	4.0
23	4.4	3.5	3.1	2.9	2.8	3.3	9.5	8.2	6.0	4.2	5.1	3.9
24	4.3	3.5	3.1	2.9	2.8	3.4	9.5	8.2	5.9	4.2	5.2	3.9
25	4.3	3.5	3.1	2.9	2.8	3.5	9.4	8.2	5.7	4.3	5.8	3.8
26	4.3	3.5	3.1	2.9	2.8	3.5	9.0	8.2	5.9	4.5	5.4	3.7
27	4.3	3.4	3.1	2.9	2.8	3.5	8.8	8.2	6.0	5.1	4.8	3.7
28	4.3	3.4	3.1	2.9	2.8	3.5	8.6	8.1	5.7	4.7	4.5	3.8
29	4.2	3.4	3.1	2.8	2.8	3.5	9.0	7.8	5.5	5.2	4.2	3.9
30	4.3	3.4	3.1	2.8	---	3.5	8.4	7.7	5.2	5.0	4.2	4.0
31	4.2	---	3.1	2.8	---	3.5	---	7.7	---	5.1	4.0	---
TOTAL	137.2	112.0	98.0	91.2	81.2	97.2	269.9	312.6	182.3	140.2	165.8	118.8
MEAN	4.43	3.73	3.16	2.94	2.80	3.14	9.00	10.1	6.08	4.52	5.35	3.96
MAX	4.6	4.2	3.4	3.1	2.8	3.5	12	19	7.6	5.2	19	4.3
MIN	4.2	3.4	3.1	2.8	2.8	2.8	3.6	7.7	5.2	4.1	3.8	3.7
AC-FT	272	222	194	181	161	193	535	620	362	278	329	236

CAL YR 1983 TOTAL 2067.8 MEAN 5.67 MAX 65 MIN 3.1 AC-FT 4100
WTR YR 1984 TOTAL 1806.4 MEAN 4.94 MAX 19 MIN 2.8 AC-FT 3580

NOTE.--NO GAGE-HEIGHT RECORD DEC. 5 TO APR. 6.

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--Suspended sediment discharge June 1981 to current year (seasonal only).

INSTRUMENTATION.--Pumping sediment sampler since June 1981, set to collect sample every twelve hours or on stage.

REMARKS.--In addition to automatic sampler, EWI samples are collected by local observer who also exchanges bottles in sampler on a predetermined interval. Sediment data for 1984 is considered poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 25,800 mg/L Aug. 20, 1982; minimum daily, 5 mg/L July 12, 1983.
SEDIMENT LOADS: Maximum daily, 15,600 tons Aug. 14, 1983; minimum daily, 0.05 ton Sept. 20-22, 1981, July 12, 1983.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 7,510 mg/L Aug. 19; minimum daily, 26 mg/L Aug. 16.
SEDIMENT LOADS: Maximum daily, 545 tons, Aug. 18; minimum daily, 0.27 ton Aug. 16.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 24...	1300	9.6	319	8.3
MAY 02...	1400	8.8	208	4.9
JUN 19...	1200	5.6	58	.88
JUN 28...	1200	5.7	73	1.1
AUG 02...	1400	4.6	256	3.2

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3.6	---	---	8.8	---	5.2	7.6	---	.82
2	3.6	---	---	9.6	234	5.9	7.6	---	.80
3	3.8	---	---	8.9	222	5.2	7.0	---	.72
4	4.5	---	---	8.7	212	5.0	6.6	---	.68
5	6.0	---	---	8.8	188	4.5	6.5	---	.67
6	8.0	---	---	9.2	147	3.7	6.2	---	.62
7	11	---	---	9.0	130	3.2	6.2	---	.62
8	11	---	---	8.5	550	13	6.3	---	.85
9	12	---	---	9.3	---	22	6.3	---	1.4
10	12	---	---	13	3050	123	6.2	---	1.3
11	12	---	---	19	3090	207	6.2	---	1.2
12	12	---	---	19	3260	222	6.0	---	1.1
13	10	---	---	16	3880	179	5.9	---	1.0
14	10	---	---	15	3340	152	5.9	---	.97
15	9.7	---	---	13	---	77	5.8	---	.92
16	9.7	---	---	11	---	33	5.7	---	.89
17	10	---	---	9.5	---	13	5.7	---	.89
18	10	---	---	9.1	---	6.1	5.6	---	.88
19	10	---	---	9.1	---	3.9	5.8	58	.91
20	9.7	---	---	8.9	---	3.1	5.8	---	.89
21	9.6	---	---	8.6	---	2.6	5.7	---	.86
22	9.5	---	---	8.3	---	2.1	5.8	---	.94
23	9.5	---	---	8.2	---	1.9	6.0	---	1.6
24	9.5	319	8.2	8.2	---	1.7	5.9	---	1.4
25	9.4	---	7.5	8.2	---	1.4	5.7	---	1.2
26	9.0	---	6.8	8.2	---	1.3	5.9	---	1.6
27	8.8	---	6.1	8.2	---	1.2	6.0	---	1.8
28	8.6	---	5.3	8.1	---	1.1	5.7	73	1.1
29	9.0	---	6.3	7.8	---	.97	5.5	---	.89
30	8.4	---	5.4	7.7	---	.91	5.2	---	.70
31	---	---	---	7.7	---	.87	---	---	---
TOTAL	269.9	---	45.6	312.6	---	1102.85	182.3	---	30.22
		JULY			AUGUST			SEPTEMBER	
1	5.2	---	.59	4.8	---	7.1	4.0	---	.48
2	5.0	---	.51	4.6	310	3.9	4.0	---	.48
3	4.8	---	.47	4.6	---	1.7	4.2	---	.68
4	4.8	---	.47	4.5	---	.85	4.3	---	.93
5	4.8	---	.48	4.5	---	.46	4.2	---	1.1
6	4.6	---	.45	4.5	---	.43	4.2	---	1.1
7	4.5	---	.41	4.5	---	.41	4.0	---	.97
8	4.4	---	.38	4.5	---	.39	4.0	83	.90
9	4.4	---	.38	4.5	30	.36	4.0	---	.86
10	4.5	---	.39	4.5	---	.35	4.0	---	.82
11	4.6	---	1.9	4.4	---	.33	3.9	---	.74
12	4.2	75	.85	4.3	---	.34	3.9	---	.70
13	4.2	---	.61	4.9	---	1.4	3.9	---	.65
14	4.2	---	.44	4.6	---	.37	3.8	---	.62
15	4.1	---	.35	4.2	---	.31	3.9	65	.68
16	4.1	---	.31	3.8	---	.27	3.9	---	.74
17	4.2	---	.32	3.8	---	1.5	4.0	---	.92
18	4.3	---	.39	8.3	---	545	4.0	---	1.2
19	4.3	---	.43	19	---	534	3.9	---	1.1
20	4.2	33	.37	7.1	---	5.8	4.0	---	1.0
21	4.2	---	.36	6.7	808	30	4.0	---	1.2
22	4.3	---	.36	6.0	---	21	4.0	---	1.3
23	4.2	---	.35	5.1	---	3.0	3.9	---	1.2
24	4.2	---	.34	5.2	---	2.3	3.9	---	1.1
25	4.3	---	.35	5.8	---	3.0	3.8	---	.97
26	4.5	40	.53	5.4	---	1.7	3.7	---	1.1
27	5.1	263	4.1	4.8	---	.97	3.7	161	1.6
28	4.7	95	1.2	4.5	---	.73	3.8	---	1.7
29	5.2	358	9.2	4.2	---	.61	3.9	---	1.8
30	5.0	---	15	4.2	---	.56	4.0	---	1.8
31	5.1	---	10	4.0	---	.51	---	---	---
TOTAL	140.2	---	52.29	165.8	---	1169.65	118.8	---	30.44
YEAR	1806.4		2431.05						

BEST COPY AVAILABLE

07093775 BADGER CREEK, LOWER STATION NEAR HOWARD, CO

LOCATION.--Lat 38°28'02", long 105°51'34", in SW¼SW¼ sec.27, T.49 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 660 ft upstream from Denver and Rio Grande Railroad bridge, 960 ft upstream from mouth, and 1.9 mi northwest of Howard.

DRAINAGE AREA.--211 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,780 ft, from topographic map. Prior to May 19, 1983, at site 360 ft downstream at datum 5.07 ft. lower.

REMARKS.--Records good except those between 260 ft^3/s, and 1,950 ft^3/s, those for winter period, which are fair, and those above 1,950 ft^3/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft^3/s, July 28, 1984, gage height, 8.05 ft, (from floodmark) from rating curve extended above 1,950 ft^3/s; minimum daily, 0.56 ft^3/s, Feb. 4, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 13	1400	52	4.53	Aug. 19	about0200	about310	unknown
July 27	1530	230	5.55	Aug. 22	0530	49	4.70
July 28	1730	*2,470	a8.05	Aug. 24	2100	133	5.17
Aug. 4	1645	52	4.48				

Minimum daily discharge, 3.4 ft^3/s, Sept. 7, 10, 11, 14.
a-From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.9	5.5	4.4	6.3	5.1	6.6	15	11	9.2	18	5.8
2	5.5	5.1	5.9	4.1	6.0	5.3	6.4	17	11	8.5	17	4.6
3	4.8	5.0	5.9	3.8	5.7	5.2	6.1	17	11	7.9	15	5.1
4	4.9	5.1	5.9	3.8	5.4	5.4	6.0	17	11	7.4	16	4.4
5	4.9	4.9	5.6	3.6	5.2	6.4	6.2	18	12	7.4	12	3.8
6	4.9	5.5	5.4	3.6	5.4	7.0	6.9	19	13	6.9	8.6	3.5
7	4.6	5.6	5.2	3.6	5.4	7.0	8.5	18	14	7.0	8.8	3.4
8	4.6	6.1	5.2	3.6	5.6	5.8	8.9	16	15	6.3	8.6	3.7
9	4.5	5.9	5.2	3.6	5.1	5.9	15	20	15	6.5	7.7	3.6
10	4.9	6.3	5.5	3.6	5.4	5.7	13	24	13	6.6	7.3	3.4
11	4.7	6.3	5.5	3.6	5.0	5.8	16	32	12	7.2	6.6	3.4
12	4.8	6.6	5.5	3.6	5.0	5.8	14	33	11	6.9	8.2	3.8
13	4.6	6.6	5.5	3.6	5.0	5.9	13	39	10	6.4	9.5	3.6
14	4.8	6.7	5.5	3.6	4.9	5.9	13	36	9.8	5.9	9.1	3.4
15	4.2	6.3	5.2	3.6	4.9	5.9	13	33	11	6.1	12	3.6
16	4.1	6.2	5.0	4.0	5.5	6.0	12	31	11	6.5	7.7	3.7
17	4.2	6.2	5.0	4.5	5.2	6.5	16	27	11	5.8	8.1	4.4
18	4.1	6.7	5.0	5.0	5.2	6.3	20	27	11	5.9	8.8	3.8
19	4.5	6.6	4.9	5.9	5.4	6.1	22	26	11	6.0	52	3.8
20	4.4	6.6	4.6	5.9	6.0	6.3	20	24	10	5.5	18	4.5
21	4.6	6.6	4.4	6.2	6.0	5.9	12	22	9.9	5.2	14	4.3
22	4.4	6.6	4.1	6.2	5.6	6.1	11	21	9.7	4.9	25	4.4
23	4.6	6.2	3.8	6.3	5.5	6.3	11	20	9.7	5.2	17	4.7
24	4.6	5.5	4.0	6.6	6.2	6.3	14	18	9.1	4.7	27	4.6
25	4.6	5.2	4.2	6.4	5.6	6.3	17	16	8.8	4.6	15	4.2
26	4.9	5.2	4.4	6.2	5.6	6.1	16	14	9.2	5.7	13	4.4
27	4.6	5.2	4.4	5.9	5.6	6.4	11	13	8.6	13	10	4.3
28	4.9	5.5	3.8	6.0	5.4	6.4	12	12	8.7	143	8.6	4.6
29	4.6	5.5	4.1	6.2	5.2	6.4	12	11	8.0	61	7.8	5.2
30	4.8	5.5	3.8	6.2	---	6.7	13	11	9.0	24	6.6	5.1
31	4.8	---	4.4	6.3	---	6.7	---	12	---	20	5.9	---
TOTAL	144.3	176.2	152.4	149.5	158.3	188.9	371.6	659	324.5	427.1	408.9	125.1
MEAN	4.65	5.87	4.92	4.82	5.46	6.09	12.4	21.3	10.8	13.8	13.2	4.17
MAX	5.5	6.7	5.9	6.6	6.3	7.0	22	39	15	143	52	5.8
MIN	4.1	4.9	3.8	3.6	4.9	5.1	6.0	11	8.0	4.6	5.9	3.4
AC-FT	286	349	302	297	314	375	737	1310	644	847	811	248

CAL YR 1983 TOTAL 3802.8 MEAN 10.4 MAX 108 MIN 2.1 AC-FT 7540
WTR YR 1984 TOTAL 3285.8 MEAN 8.98 MAX 143 MIN 3.4 AC-FT 6520

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: May 1981 to current year (seasonal record only).

INSTRUMENTATION.--Pumping sediment sampler since May 1981.

REMARKS.--In addition to pumping sediment sampler, samples are collected by local observer who also exchanges sediment bottles in sampler on a prescribed interval. Sediment discharge record is considered fair at normal flow and poor on rises.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,400 mg/L (estimated) Aug. 21, 1982; minimum daily, 1 mg/L, Sept. 22, 1981.
SEDIMENT LOADS: Maximum daily, 31,500 tons (estimated) July 28, 1984; minimum daily, no load Sept. 12-30, 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 14,900 mg/L (estimated) July 28; minimum daily, 2 mg/L Sept. 27-30.
SEDIMENT LOADS: Maximum daily, 31,500 tons (estimated) July 28; minimum daily, 0.02 ton Sept. 27-28.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
09...	1300	13	204	7.2	60
09...	1410	13	214	7.5	59
09...	1535	12	194	6.3	55
19...	1125	25	378	26	49
19...	1250	25	316	21	63
23...	1325	10	87	2.3	34
26...	1345	13	104	3.7	19

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
07...	1415	18	5	.24	--
21...	1500	23	40	2.5	--
JUN					
07...	1100	14	8	.30	--
JUL					
31...	1540	16	570	25	32
31...	1700	25	15600	1050	89

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	6.6	---	---	15	17	.69	11	---	.15
2	6.4	---	---	17	---	1.4	11	---	.15
3	6.1	---	---	17	---	.92	11	---	.15
4	6.0	---	---	17	---	.28	11	---	.15
5	6.2	---	---	18	---	.44	12	---	.16
6	6.9	---	---	19	---	.41	13	5	.18
7	8.5	---	---	18	5	.24	14	8	.30
8	8.9	---	---	16	---	.30	15	---	2.4
9	15	230	9.3	20	---	.70	15	---	3.2
10	13	280	9.8	24	---	1.3	13	79	2.8
11	16	---	14	32	---	20	12	46	1.5
12	14	---	7.2	33	---	80	11	---	1.4
13	13	---	4.2	39	---	98	10	49	1.3
14	13	---	3.3	36	203	21	9.8	---	.66
15	13	---	2.8	33	120	12	11	---	.74
16	12	---	2.3	31	42	3.5	11	---	.65
17	16	---	6.9	27	---	2.7	11	---	.48
18	20	372	20	27	---	2.6	11	11	.33
19	22	378	22	26	---	3.2	11	---	.30
20	20	212	11	25	---	2.8	10	---	.24
21	12	135	4.4	22	40	2.4	9.9	---	.21
22	11	54	1.6	21	---	1.4	9.7	7	.18
23	11	87	2.6	20	---	.65	9.7	---	.18
24	14	---	4.9	18	7	.34	9.1	---	.15
25	17	110	5.0	16	---	.30	8.8	---	.14
26	16	104	4.5	14	---	.26	9.2	---	.87
27	11	---	1.2	13	---	.21	8.6	30	.70
28	12	---	.81	12	6	.19	8.7	---	.47
29	12	---	.65	11	---	.18	8.0	---	.17
30	13	---	.53	11	---	.18	9.0	---	.85
31	---	---	---	12	5	.16	---	---	---
TOTAL	371.6	---	138.99	659	---	258.75	324.5	---	21.16
		JULY			AUGUST			SEPTEMBER	
1	9.2	---	.37	18	---	58	5.8	---	.20
2	8.5	---	.18	17	---	200	4.6	---	.14
3	7.9	---	.13	15	330	13	5.1	---	.14
4	7.4	6	.12	16	---	310	4.4	---	.11
5	7.4	---	.12	12	---	7.8	3.8	8	.08
6	6.9	---	.11	8.6	---	1.6	3.5	---	.08
7	7.0	---	.08	8.8	---	1.9	3.4	---	.06
8	6.3	---	.07	8.6	---	1.2	3.7	---	.07
9	6.5	---	.07	7.7	44	.91	3.6	---	.06
10	6.6	---	.07	7.3	---	.79	3.4	---	.06
11	7.2	6	.12	6.6	---	.66	3.4	---	.06
12	6.9	---	.11	8.2	---	1.5	3.8	6	.06
13	6.4	---	.07	9.5	---	1.5	3.6	---	.06
14	5.9	---	.06	9.1	---	1.2	3.4	---	.06
15	6.1	---	.10	12	---	2.9	3.6	---	.06
16	6.5	---	.18	7.7	---	1.0	3.7	---	.06
17	5.8	6	.09	8.1	---	.87	4.4	---	.24
18	5.9	---	.10	8.8	---	1.4	3.8	---	.17
19	6.0	---	.10	52	---	5100	3.8	14	.14
20	5.5	---	.06	18	---	9.2	4.5	---	.16
21	5.2	---	.06	14	---	2.3	4.3	---	.19
22	4.8	---	.05	25	---	627	4.4	---	.15
23	5.2	---	.08	17	---	6.9	4.7	---	.14
24	4.7	---	.08	27	---	973	4.6	---	.10
25	4.6	6	.07	15	---	8.1	4.2	---	.06
26	5.7	---	.15	13	---	1.8	4.4	---	.04
27	13	6730	942	10	---	.81	4.3	---	.02
28	143	---	31500	8.6	---	.58	4.6	---	.02
29	61	1930	513	7.8	---	.46	5.2	2	.03
30	24	---	32	6.6	---	.32	5.1	---	.03
31	20	3920	295	5.9	---	.24	---	---	---
TOTAL	427.1	---	33284.80	408.9	---	7336.94	125.1	---	2.85
YEAR	3285.8		41043.49						

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07094500 ARKANSAS RIVER AT PARKDALE, CO

LOCATION.--Lat 38°29'14", long 105°22'23", in NE¼NW¼ sec.18, T.18 S., R.71 W., Fremont County, Hydrologic Unit 11020001, on left bank at Parkdale, 100 ft upstream from Bumback Gulch, 300 ft upstream from bridge on U.S. Highway 50, and 0.9 mi upstream from Copper Gulch.

DRAINAGE AREA.--2,548 mi².

PERIOD OF RECORD.--October 1945 to September 1955, October 1964 to current year. Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,720 ft, from topographic map. Prior to Oct. 1, 1964, at site 600 ft downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--30 years (water years 1946-55, 1965-84), 800 ft³/s; 579,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,310 ft³/s, June 26, 1983, gage height, 7.76 ft; maximum gage height, 9.02 ft, June 22, 1947, site and datum then in use; minimum daily discharge, 200 ft³/s, Jan. 5-7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,430 ft³/s at 1430 May 26, gage height, 7.12 ft; minimum daily, 321 ft³/s, March 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	879	384	489	420	390	345	388	1020	4850	4800	2190	1840
2	871	391	476	410	395	345	378	1280	4820	4770	2170	1780
3	867	384	495	407	395	350	360	1450	4430	4180	1980	1690
4	854	373	484	442	395	355	354	1480	4190	3890	2050	1610
5	831	364	480	468	405	321	390	1510	3880	3510	1860	1550
6	802	359	415	451	400	325	428	1500	3480	2870	1820	1490
7	759	358	436	438	390	325	430	1480	3290	2530	2000	1440
8	704	362	475	435	390	335	399	1460	2750	2460	1920	1380
9	665	387	478	434	400	342	402	1470	2400	2830	1840	1340
10	578	383	469	424	390	349	413	1350	2080	3230	1730	1310
11	428	379	462	398	370	353	399	1350	1940	3570	1630	1260
12	439	402	464	397	345	340	394	1480	1930	3050	1590	1180
13	437	402	454	378	350	335	359	1580	2000	2760	1580	1100
14	430	409	435	356	370	349	362	1710	2500	2440	1590	1030
15	432	404	444	355	375	369	426	2250	3160	2550	1610	961
16	441	395	419	380	355	388	710	2600	4090	2400	1770	908
17	410	427	417	390	355	417	723	2700	4460	2310	1950	870
18	394	445	427	370	350	398	765	2710	4060	2330	2150	841
19	390	467	460	360	336	386	798	2500	3500	2100	2400	817
20	394	435	450	380	328	370	1020	2370	3590	2070	1940	794
21	391	468	357	410	340	382	1020	2590	3760	2030	1940	769
22	388	507	348	431	350	410	757	3470	4010	2160	2140	744
23	384	455	340	442	350	409	740	4000	4320	2100	2130	718
24	374	428	340	438	336	388	752	4670	4250	2060	2200	692
25	372	460	340	431	340	405	789	5230	4090	2090	2300	671
26	383	499	340	407	360	393	811	5320	4620	2110	2300	646
27	384	479	340	400	332	388	764	5080	4720	2130	2200	626
28	379	440	360	395	324	376	751	4750	4410	2090	2120	609
29	381	441	390	415	340	355	775	4330	4030	2130	2050	597
30	385	471	420	410	---	399	802	4260	4110	2100	1980	587
31	374	---	430	410	---	393	---	4540	---	2190	1910	---
TOTAL	16200	12558	13134	12682	10556	11395	17859	83490	109720	83840	61040	31850
MEAN	523	419	424	409	364	368	595	2693	3657	2705	1969	1062
MAX	879	507	495	468	405	417	1020	5320	4850	4800	2400	1840
MIN	372	358	340	355	324	321	354	1020	1930	2030	1580	587
AC-FT	32130	24910	26050	25150	20940	22600	35420	165600	217600	166300	121100	63170

CAL YR 1983 TOTAL 421529 MEAN 1155 MAX 6110 MIN 272 AC-FT 836100
WTR YR 1984 TOTAL 464324 MEAN 1269 MAX 5320 MIN 321 AC-FT 921000

07094900 MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, CO

LOCATION.--Lat 38°06'30", long 105°36'03", in SW¼NE¼ sec.36, T.45 N., R.12 E., Custer County, Hydrologic Unit 11020001, on right bank 300 ft downstream from Rainbow Trail crossing and 7.5 mi west of Westcliffe.

DRAINAGE AREA.--3.2 mi^2.

PERIOD OF RECORD.--August 1974 to July 1978; November 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,960 ft, from topographic map.

REMARKS.--Records good except those for period Nov. 30 to May 5, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49 ft^3/s, July 10,1975, gage height, 1.94 ft; minimum daily, 0.30 ft^3/s, Jan. 8 to Mar. 4, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft^3/s, May 24, gage height, 2.03 ft, only peak above base of 30 ft^3/s; minimum daily, 0.50 ft^3/s, Mar. 30 to Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	.90	.90	.90	.81	.50	.70	23	12	3.6	2.1
2		---	.90	.90	.90	.80	.50	.75	21	10	3.6	2.2
3		---	.90	.90	.90	.80	.50	.80	21	10	3.3	2.1
4		---	.90	.90	.90	.78	.52	.90	20	9.4	3.2	2.0
5		---	.90	.90	.90	.78	.55	.94	18	8.8	3.1	1.9
6		---	.90	.90	.90	.76	.60	.94	14	8.3	3.4	1.8
7		---	.90	.90	.90	.74	.60	1.0	13	8.1	3.6	1.4
8		---	.90	.90	.90	.72	.60	1.0	10	7.8	3.8	1.4
9		---	.90	.90	.90	.70	.60	1.5	9.9	8.0	1.5	1.5
10		---	.90	.90	.90	.70	.60	2.8	10	7.6	1.5	1.5
11		---	.90	.90	.90	.69	.60	4.8	12	7.1	1.9	1.9
12		---	.90	.90	.90	.68	.60	9.2	14	6.6	2.0	2.0
13		---	.90	.90	.90	.67	.62	10	16	5.8	1.7	1.7
14		---	.90	.90	.90	.65	.64	14	18	5.8	1.7	1.7
15		---	.90	.90	.90	.63	.65	17	18	5.9	1.8	1.8
16		---	.90	.90	.90	.61	.70	16	20	5.9	1.8	1.8
17		---	.90	.90	.90	.60	.70	13	19	6.5	4.4	2.0
18		---	.90	.90	.90	.60	.68	13	17	5.6	4.3	1.7
19		---	.90	.90	.90	.59	.65	11	16	5.4	3.5	1.6
20		---	.90	.90	.90	.58	.60	11	17	4.7	4.5	1.9
21		---	.90	.90	.89	.57	.60	16	16	4.3	4.0	1.8
22		---	.90	.90	.88	.56	.64	23	16	4.2	3.7	1.7
23		---	.90	.90	.87	.55	.66	23	14	3.9	3.3	1.6
24		---	.90	.90	.86	.54	.68	26	13	3.8	3.6	1.6
25		---	.90	.90	.85	.53	.70	28	13	3.5	3.6	1.5
26		---	.90	.90	.85	.52	.70	25	13	3.2	3.2	1.5
27		---	.90	.90	.84	.51	.70	24	12	3.3	3.0	1.6
28		---	.90	.90	.83	.51	.68	23	11	4.0	2.8	1.6
29		---	.90	.90	.82	.51	.65	23	10	3.4	2.6	1.6
30		.90	.90	.90	---	.50	.65	23	12	3.6	2.2	1.5
31		---	.90	.90	---	.50	---	23	---	3.8	2.1	---
TOTAL		---	27.90	27.90	25.69	19.69	18.67	387.33	456.9	190.3	92.3	52.0
MEAN		---	.90	.90	.89	.64	.62	12.5	15.2	6.14	2.98	1.73
MAX		---	.90	.90	.90	.81	.70	28	23	12	4.5	2.2
MIN		---	.90	.90	.82	.50	.50	.70	9.9	3.2	1.5	1.4
AC-FT		---	55	55	51	39	37	768	906	377	183	103

07096500 FOURMILE CREEK NEAR CANON CITY, CO

LOCATION.--Lat 38°26'11", long 105°11'27", in NE¼SW¼ sec.35, T.18 S., R.70 W., Fremont County, Hydrologic Unit 11020002, on right bank 1,000 ft downstream from railroad bridge, 0.6 mi upstream from mouth, and 2.8 mi east of courthouse in Canon City.

DRAINAGE AREA.--434 mi².

PERIOD OF RECORD.--April to October 1910 (gage heights and discharge measurements only), October 1948 to September 1953, November 1970 to current year. Published as "Oil or Fourmile Creek" in 1910 and as Oil Creek near Canon City, 1948-53.

GAGE.--Water-stage record -. Concrete control since Oct. 1, 1974. Altitude of gage is 5,254 ft, from topographic map. April to October 1910, nonrecording gage at site 1,200 ft upstream at different datum. October 1948 to September 1953, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Records good. Diversions for irrigation of about 500 acres above station. Water imported to basin from Arkansas River for irrigation of a few small orchards above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years (water years 1949-53, 1972-84), 26.3 ft³/s; 19,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,260 ft³/s, July 11, 1951, gage height, 9.25 ft, from floodmarks, site and datum then in use, from rating curve extended above 96 ft³/s, on basis of slope-area measurement of peak flow; no flow Sept. 3-10, 1950, Sept. 23, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 29	0200	300	3.76	Aug. 21	0230	2,480	6.11
Aug. 12	2030	670	4.42	Aug. 22	0800	a *3,150	b6.70
Aug. 19	0900	360	3.96	Aug. 25	0200	1,590	5.30

Minimum daily discharge, 7.2 ft³/s, Mar. 7.
a-From rating curve extended on the basis of three slope-area measurements of peak flow.
b-From floodmark.

REVISIONS.--The maximum discharges for water years 1982 and 1983 have been revised to 1,290 ft³/s, June 21, 1982, gage height, 5.03 ft, and 1,140 ft³/s, Aug. 27, 1983, gage height, 4.89 ft; from slope-area measurement of peak flow at a higher stage in 1984, these figures supersede those published in the reports for 1982 and 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	40	27	14	11	12	45	82	49	13	62	340
2	31	41	25	13	11	10	44	82	65	13	93	346
3	32	41	24	13	11	9.1	42	80	64	12	80	341
4	33	42	22	14	11	8.2	43	76	60	14	71	336
5	31	42	21	14	11	7.6	44	63	56	13	66	335
6	32	38	19	14	12	7.3	46	60	55	13	61	355
7	34	35	19	15	13	7.2	46	56	54	18	67	339
8	41	41	19	14	13	7.5	43	49	53	15	64	326
9	47	64	19	14	13	7.5	44	46	52	16	63	326
10	50	59	19	13	16	8.0	43	46	50	13	67	316
11	43	57	20	13	13	8.0	45	62	48	14	61	305
12	33	54	20	12	11	8.0	43	70	45	15	71	303
13	31	51	20	12	10	8.0	41	76	41	15	74	346
14	32	48	18	12	10	8.0	36	82	41	13	60	304
15	33	45	18	11	10	8.0	35	84	39	17	111	294
16	33	42	17	10	10	8.1	39	87	36	34	79	292
17	35	41	15	10	10	8.5	43	92	35	23	71	286
18	35	40	14	9.7	10	9.5	47	99	33	17	107	259
19	36	42	13	9.8	10	10	48	96	36	15	244	216
20	37	42	11	10	9.7	11	55	98	31	13	282	196
21	35	42	9.6	9.4	9.5	13	66	89	25	19	823	156
22	40	44	9.0	8.8	10	16	72	86	24	17	1110	128
23	43	45	8.7	10	12	18	73	82	23	14	771	106
24	43	44	8.5	11	12	20	68	85	23	14	629	86
25	43	41	8.5	10	11	23	66	78	18	15	917	76
26	42	40	9.6	10	12	29	61	63	17	15	498	67
27	43	38	12	11	12	54	61	60	16	21	342	63
28	45	36	12	11	11	47	69	57	13	28	282	61
29	45	33	11	10	12	43	74	50	13	63	310	61
30	45	30	11	9.5	---	46	78	46	14	63	318	61
31	39	---	13	9.8	---	45	---	46	---	58	333	---
TOTAL	1171	1298	492.9	358.0	327.2	525.5	1560	2228	1129	643	8187	7026
MEAN	37.8	43.3	15.9	11.5	11.3	17.0	52.0	71.9	37.6	20.7	264	234
MAX	50	64	27	15	16	54	78	99	65	63	1110	355
MIN	29	30	8.5	8.8	9.5	7.2	35	46	13	12	60	61
AC-FT	2320	2570	978	710	649	1040	3090	4420	2240	1280	16240	13940

CAL YR 1983 TOTAL 25507.9 MEAN 69.9 MAX 264 MIN 8.5 AC-FT 50590
WTR YR 1984 TOTAL 24945.6 MEAN 68.2 MAX 1110 MIN 7.2 AC-FT 49480

07097000 ARKANSAS RIVER AT PORTLAND, CO

LOCATION.--Lat 38°23'18", long 105°00'56", in NE¼NE¼ sec.20, T.19 S., R.68 W., Fremont County. Hydrologic Unit 11020002, on right bank at bridge on State Highway 120 at Portland and 1 mi downstream from Hardscrabble Creek.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,024 mi².

PERIOD OF RECORD.--May 1939 to September 1952, October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,021.59 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1974, at site 400 ft downstream at datum 0.03 ft, lower.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 60,000 acres and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--23 years (water years 1940-52, 1975-84), 770 ft³/s; 557,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s, June 5, 1949, gage height, 12.12 ft, from rating curve extended above 5,300 ft³/s; minimum daily, 71 ft³/s, Apr. 2, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,620 ft³/s at 2330 Aug. 17, gage height, 8.70 ft; minimum daily, 300 ft³/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	368	434	490	318	352	384	912	5140	4790	2430	2040
2	747	368	434	500	318	344	380	1500	5240	4830	2670	1880
3	723	376	442	490	318	344	352	1440	4930	4350	2300	1750
4	705	372	434	460	314	356	352	1400	4740	4010	2260	1660
5	675	364	434	420	318	344	372	1340	4390	3660	2120	1590
6	648	352	384	396	314	340	442	1310	3990	3140	1950	1450
7	609	348	376	372	314	340	565	1260	3660	2620	2180	1330
8	587	364	396	356	318	352	711	1210	3330	2500	2080	1210
9	555	408	420	360	325	360	802	1210	2710	2880	1880	1200
10	540	416	420	360	325	356	636	1120	2280	3240	1760	1170
11	480	400	408	356	325	360	550	1070	2090	3710	1570	1080
12	456	404	416	348	310	352	480	1210	2030	3230	1520	795
13	465	412	412	336	310	348	384	1350	2110	2940	1560	729
14	460	408	404	329	322	348	352	1450	2570	2550	1550	699
15	460	412	400	320	325	360	322	1910	3330	2680	1620	670
16	485	400	392	340	314	372	613	2430	4150	2520	1730	664
17	460	412	372	320	318	400	670	2610	4580	2380	2360	687
18	447	447	370	320	322	452	711	2650	4300	2380	2640	642
19	430	490	380	320	310	429	765	2550	3770	2170	3290	626
20	380	480	390	340	300	416	892	2370	3810	2170	2590	620
21	390	515	350	330	307	424	1090	2520	3920	2180	2740	614
22	380	520	350	340	318	485	814	3380	4110	2300	3970	592
23	370	442	360	350	322	500	783	3990	4370	2240	3150	535
24	360	400	370	360	322	442	783	4770	4370	2180	3030	545
25	360	420	400	400	325	442	802	5410	4200	2230	3330	515
26	350	460	420	352	340	452	771	5740	4490	2230	3200	525
27	360	434	450	336	329	460	729	5460	4650	2250	2900	540
28	360	408	470	322	325	438	705	5120	4460	2270	2610	540
29	368	392	470	325	340	438	808	4840	4180	2460	2420	565
30	380	400	460	322	---	460	814	4720	4210	2790	2280	570
31	364	---	490	322	---	420	---	4830	---	2540	2100	---
TOTAL	15030	12392	12708	11292	9266	12286	18834	83082	116110	88420	73790	28033
MEAN	485	413	410	364	320	396	628	2680	3870	2852	2380	934
MAX	747	520	490	500	340	500	1090	5740	5240	4830	3970	2040
MIN	350	348	350	320	300	340	322	912	2030	2170	1520	515
AC-FT	29810	24580	25210	22400	18380	24370	37360	164800	230300	175400	146400	55600

CAL YR 1983 TOTAL 432365 MEAN 1185 MAX 7140 MIN 329 AC-FT 857600
WTR YR 1984 TOTAL 481243 MEAN 1315 MAX 5740 MIN 300 AC-FT 954500

07097000 ARKANSAS RIVER AT PORTLAND, CO
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1982.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. There was no record for the period October 1-6, Nov. 16 to Dec. 29, and Mar. 31 to Apr. 12.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,380 micromhos Sept. 30, 1981; minimum daily, 111 micromhos June 22, 1984.
WATER TEMPERATURES: Maximum daily observed, 21.5°C Aug. 8, 1982; minimum daily, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 598 micromhos Oct. 20; minimum daily, 111 micromhos June 22.
WATER TEMPERATURES: Maximum daily recorded, 21.0°C July 22-23, Aug. 15-18, Sept.17-20; minimum daily, 0.0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 25...	1300	380	580	8.3	10.0	3.5	10.5	46	230
DEC 29...	1500	470	520	8.2	.5	3.6	11.2	K10	26
APR 12...	1600	510	535	8.2	11.0	21	9.5	K16	150
JUN 13...	1115	2110	220	8.1	16.0	12	8.4	K110	360
AUG 14...	1015	1560	235	8.0	18.0	15	8.4	330	830

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 25...	240	66	19	29	.8	2.8	160	130	11	.70
DEC 29...	230	60	19	27	.8	2.8	144	130	9.2	.60
APR 12...	200	52	18	27	.9	4.4	153	92	10	.60
JUN 13...	83	23	6.2	7.8	.4	1.5	58	37	2.9	.40
AUG 14...	100	29	6.7	10	.5	1.6	74	36	3.2	.40

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT 25...	14	367	370	.50	377	.24	.180	.80	.090	.090
DEC 29...	14	352	350	.48	447	.54	.030	.60	.070	.070
APR 12...	15	314	310	.43	432	.26	.120	.90	.190	.080
JUN 13...	8.8	130	120	.18	741	.20	.020	.40	.170	.040
AUG 14...	9.3	142	140	.19	598	.12	.030	.40	.160	.010

K BASED ON NON-IDEAL COLONY COUNT.

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT									
25...	1300	1	75	<.5	2	<1	<3	28	200
JUN									
13...	1115	<1	41	2	<1	2	<3	7	44
AUG									
14...	1015	<1	48	<1	<1	<1	<3	12	48

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
25...	13	52	.1	<10	24	2	<1	<6	120
JUN									
13...	6	23	<.1	<10	<1	<1	<1	<6	41
AUG									
14...	6	17	.1	<10	3	<1	<1	<6	15

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
25...	1300	380	9	9.2	51
APR					
12...	1600	510	130	179	38
JUN					
13...	1115	2110	194	1110	34
AUG					
14...	1015	1560	134	564	48

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	559	---	493	494	466	---	400	228	166	200	316
2	---	554	---	483	493	463	---	347	228	169	206	323
3	---	554	---	476	488	467	---	321	225	168	211	330
4	---	556	---	486	482	461	---	298	225	164	215	337
5	---	568	---	497	475	464	---	288	227	156	220	346
6	---	581	---	491	478	480	---	288	229	145	225	348
7	450	585	---	495	477	483	---	289	232	130	227	353
8	460	584	---	491	479	479	---	286	236	134	229	362
9	477	575	---	487	483	472	---	284	234	141	230	363
10	493	571	---	483	490	469	---	302	227	145	232	366
11	523	576	---	491	490	462	---	321	222	150	233	383
12	546	570	---	492	492	465	---	313	219	153	234	382
13	557	553	---	499	504	466	546	306	225	158	236	391
14	550	545	---	507	495	462	541	299	190	168	234	390
15	550	534	---	519	488	452	548	257	181	182	237	397
16	539	---	---	532	484	445	436	221	197	194	239	404
17	552	---	---	541	491	441	377	216	216	203	245	404
18	563	---	---	506	484	448	382	216	206	206	252	407
19	585	---	---	440	480	452	380	228	185	210	266	428
20	598	---	---	314	488	456	385	239	146	216	268	426
21	596	---	---	437	491	476	358	241	134	221	273	432
22	580	---	---	540	483	483	387	229	111	227	285	429
23	584	---	---	519	475	483	404	225	113	229	283	436
24	580	---	---	512	473	495	402	215	118	231	284	450
25	590	---	---	510	472	498	395	209	150	234	289	470
26	588	---	---	524	466	510	401	209	170	236	294	482
27	575	---	---	499	463	513	403	240	172	238	298	471
28	568	---	---	509	473	542	410	232	160	240	296	462
29	564	---	---	497	473	532	412	230	156	234	300	474
30	557	---	563	485	---	525	425	231	161	201	305	464
31	559	---	521	486	---	---	---	236	---	192	309	---
MEAN	551	564	542	492	483	477	422	265	191	188	253	401

WTR YR 1984 MEAN 377 MAX 598 MIN 111

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	13.0	9.5	---	---	1.0	1.0	5.5	1.0	8.0	4.5
2	---	---	12.5	9.0	---	---	1.0	1.0	5.0	1.0	9.5	4.5
3	---	---	12.0	9.0	---	---	1.5	1.0	5.0	1.0	8.5	5.0
4	---	---	12.0	8.5	---	---	1.5	1.0	5.0	.0	6.0	3.5
5	---	---	12.0	8.5	---	---	1.5	1.0	6.0	1.0	4.5	.0
6	---	---	12.0	9.0	---	---	2.5	1.0	9.0	1.0	5.0	.5
7	16.5	13.0	12.0	8.0	---	---	4.0	1.5	8.0	1.5	5.0	1.5
8	14.0	13.0	9.5	5.5	---	---	5.0	1.5	6.0	3.0	7.5	3.0
9	16.0	12.5	8.0	5.0	---	---	4.0	1.5	9.0	1.0	8.5	4.0
10	16.5	12.5	8.0	5.0	---	---	4.5	2.0	6.0	2.0	9.5	4.5
11	15.5	13.0	9.0	5.5	---	---	4.0	1.5	5.5	2.5	8.5	5.5
12	15.0	12.0	10.0	7.0	---	---	4.0	1.5	7.5	.5	10.0	4.5
13	14.5	10.5	9.5	6.5	---	---	3.0	1.0	8.5	1.5	11.0	5.0
14	13.5	10.5	8.5	6.5	---	---	2.0	1.0	6.0	3.0	11.0	6.5
15	13.5	10.0	7.5	5.0	---	---	1.0	.0	7.5	4.5	12.0	7.5
16	13.0	9.5	---	---	---	---	1.0	.0	6.0	.5	10.5	8.0
17	12.5	9.5	---	---	---	---	1.0	.0	7.0	.0	11.0	6.0
18	14.0	10.0	---	---	---	---	.0	.0	5.5	1.0	8.5	6.5
19	13.0	10.5	---	---	---	---	1.0	.0	4.0	.0	10.0	5.0
20	11.5	10.0	---	---	---	---	1.0	.0	8.0	.0	11.0	5.0
21	12.5	8.5	---	---	---	---	1.0	.0	9.0	1.5	11.0	6.0
22	13.0	8.0	---	---	---	---	1.0	1.0	8.5	2.5	8.5	4.5
23	13.0	9.0	---	---	---	---	1.0	1.0	7.5	2.5	7.5	4.0
24	12.0	9.0	---	---	---	---	1.0	1.0	9.0	2.0	10.5	4.0
25	11.5	8.5	---	---	---	---	1.5	1.0	9.5	3.0	10.5	7.0
26	12.0	7.5	---	---	---	---	1.5	1.0	6.5	3.5	10.0	5.5
27	12.0	8.0	---	---	---	---	2.0	1.0	5.0	.0	8.0	6.0
28	12.0	8.5	---	---	---	---	5.0	1.0	6.0	.0	9.5	4.0
29	11.0	7.5	---	---	---	---	5.0	1.5	5.5	2.0	10.5	5.5
30	11.5	7.5	---	---	1.0	1.0	4.5	1.5	---	---	8.0	5.0
31	12.0	8.5	---	---	1.0	1.0	5.0	1.0	---	---	---	---
MONTH	16.5	7.5	13.0	5.0	1.0	1.0	5.0	.0	9.5	.0	12.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	14.5	9.5	13.0	12.0	17.5	14.5	20.0	18.0	18.0	16.5
2	---	---	12.5	10.0	14.0	12.0	18.5	15.5	19.0	17.0	18.5	16.5
3	---	---	13.5	9.0	14.5	12.0	18.0	16.5	20.0	17.5	18.5	16.0
4	---	---	11.5	9.5	14.0	11.0	18.0	15.5	20.0	18.0	19.0	16.0
5	---	---	12.5	9.0	13.0	11.5	19.0	16.5	19.5	16.5	19.0	16.0
6	---	---	13.0	9.0	12.0	10.5	19.0	17.0	19.0	18.0	19.0	16.5
7	---	---	13.0	9.5	13.0	11.0	19.0	17.0	19.5	17.5	18.5	16.0
8	---	---	13.0	8.0	12.5	10.5	18.5	17.0	18.5	16.5	18.5	15.0
9	---	---	14.5	9.5	13.5	10.5	17.5	17.0	19.5	17.5	18.5	15.5
10	---	---	16.5	10.5	14.0	11.5	18.0	15.0	19.5	17.0	18.0	16.0
11	---	---	17.5	11.5	17.0	13.0	19.0	16.5	20.0	17.0	17.5	16.0
12	---	---	17.5	12.0	17.5	13.5	19.0	16.5	20.0	18.0	19.5	15.5
13	12.0	7.0	17.5	13.5	17.5	15.5	19.5	17.0	20.0	17.0	20.5	16.0
14	13.5	7.0	17.5	12.5	17.5	15.5	19.0	17.5	20.5	18.0	19.5	16.0
15	14.0	7.5	16.5	13.0	16.5	14.0	19.5	17.5	20.5	18.0	18.5	15.0
16	14.0	8.0	15.0	12.5	15.5	13.5	19.5	17.0	21.0	18.5	20.0	15.5
17	14.5	9.0	14.0	11.0	15.0	12.0	20.0	17.5	21.0	18.0	21.0	16.0
18	13.0	10.0	12.5	11.5	15.5	13.0	19.0	17.5	21.0	18.5	21.0	15.5
19	12.5	10.0	13.5	10.5	16.0	13.0	19.5	17.0	20.0	18.0	21.0	15.5
20	11.0	7.0	16.0	11.5	16.5	13.5	20.0	17.5	20.0	18.0	21.0	16.0
21	8.5	6.5	15.5	12.5	16.5	13.5	20.5	17.5	19.5	17.5	19.5	15.5
22	11.5	5.5	15.5	13.0	16.5	14.0	21.0	18.0	18.5	16.5	19.0	14.5
23	13.5	7.0	15.5	12.5	17.0	14.0	21.0	18.0	18.5	17.0	19.5	13.5
24	14.0	9.0	15.5	12.5	17.0	14.5	20.5	18.0	19.0	17.0	19.5	13.5
25	13.0	9.5	14.5	12.0	17.0	15.0	20.0	18.0	19.5	17.0	16.0	12.0
26	11.5	8.0	14.5	12.0	16.5	14.0	18.5	17.5	19.0	16.5	13.0	11.0
27	11.0	6.0	14.5	12.0	16.5	14.0	19.5	17.0	19.0	16.5	16.0	10.5
28	7.5	5.0	14.0	11.5	17.5	14.5	20.0	16.5	19.5	17.0	12.0	8.0
29	9.5	3.5	14.0	11.0	18.0	15.0	19.0	17.5	19.5	17.0	9.0	7.0
30	13.0	6.5	14.5	12.0	17.0	15.0	19.5	17.5	19.0	17.5	13.5	7.0
31	---	---	14.0	12.0	---	---	19.5	17.0	18.5	17.5	---	---
MONTH	14.5	3.5	17.5	8.0	18.0	10.5	21.0	14.5	21.0	16.5	21.0	7.0
YEAR	21.0	.0										

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07099215 TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'42", long 104°53'39", in NW¼SE¼ sec.33, T.16 S., R.67 W., El Paso County, Hydrologic Unit 1120002, on Fort Carson Military Reservation, on right bank 100 ft downstream from State Highway 115 bridge, 0.7 m downstream from Turkey Canyon, 0.8 mi upstream from Turkey Creek Ranch, and 9.4 mi southwest of Fountain.

DRAINAGE AREA.--13.0 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,420 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1.93 ft^3/s; 1,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft^3/s, July 28, 1982, gage height, 4.70 ft, from rating curve extended above 140 ft^3/s; no flow many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 12	0400	17	2.67	Aug. 20	1745	*740	4.30
Apr. 27	0445	17	2.67	Aug. 25	0400	27	2.72
June 23	2200	81	3.06				

Minimum daily discharge, 0.01 ft^3/s, Dec. 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.27	.34	.09	.30	.32	.23	1.6	.26	.20	.25	3.6
2	.07	.28	.34	.05	.25	.27	.32	2.0	.64	.16	.35	3.2
3	.07	.28	.32	.04	.23	.49	.16	1.7	.56	.18	.23	2.9
4	.12	.28	.30	.04	.21	.43	.27	2.4	.46	.16	.29	2.5
5	.21	.28	.28	.06	.25	.55	.43	2.4	.50	.11	.20	2.2
6	.22	.28	.25	.04	.27	.62	.43	2.0	.49	.17	.21	1.8
7	.19	.30	.23	.04	.13	.70	.55	1.8	.42	.10	.22	1.7
8	.22	.45	.20	.06	.04	.49	.55	.99	.33	.05	.24	1.5
9	.23	.35	.18	.06	.16	.47	.70	1.6	.26	.05	.21	1.3
10	.19	.40	.17	.04	.35	.43	.80	2.6	.27	.04	.21	1.2
11	.22	.45	.16	.04	.06	.52	1.5	4.6	.23	.07	.22	1.0
12	.36	.50	.15	.04	.23	.32	3.9	5.0	.16	.12	.21	.89
13	.36	.50	.15	.03	.27	.37	.38	4.6	.29	.16	.56	.74
14	.31	.40	.14	.03	.11	.26	1.3	4.3	.93	.08	.85	.85
15	.28	.35	.13	.03	.07	.27	1.1	3.2	.45	.08	1.4	.85
16	.28	.37	.13	.03	.27	.32	.30	2.1	.49	.08	.93	.87
17	.28	.38	.12	.03	.32	.37	.21	1.9	.62	.06	1.0	1.3
18	.28	.46	.11	.03	.37	.37	.29	1.8	.46	.06	2.5	.81
19	.28	.45	.10	.03	.37	.37	.26	1.8	.42	.04	16	.57
20	.28	.49	.07	.03	.49	.32	.54	1.6	.32	.15	34	.48
21	.30	.45	.06	.03	.43	.32	.33	1.3	.26	.12	7.1	.44
22	.28	.40	.05	.10	.25	.43	.80	1.1	.17	.10	9.0	.42
23	.27	.40	.04	.06	.25	.62	.25	.97	1.6	.02	18	.38
24	.26	.45	.03	.12	.23	.49	.53	.75	.86	.02	12	.34
25	.27	.55	.04	.14	.28	.43	1.1	.61	.31	.02	9.0	.32
26	.25	.45	.07	.20	.32	.43	1.3	.50	.21	.20	7.8	.35
27	.24	.32	.01	.15	.23	.32	3.9	.47	.15	.30	7.1	.38
28	.23	.32	.01	.19	.43	.16	.77	.42	.15	.15	6.4	.66
29	.25	.31	.01	.20	.37	.13	.87	.36	.13	.14	5.4	.84
30	.27	.33	.10	.20	---	.23	.89	.30	.20	.14	4.6	.78
31	.27	---	.12	.25	---	.27	---	.26	---	.16	4.2	---
TOTAL	7.42	11.50	4.41	2.48	7.54	12.09	24.86	57.03	12.60	3.49	150.68	35.17
MEAN	.24	.38	.14	.080	.26	.39	.83	1.84	.42	.11	4.86	1.17
MAX	.36	.55	.34	.25	.49	.70	3.9	5.0	1.6	.30	34	3.6
MIN	.07	.27	.01	.03	.04	.13	.16	.26	.13	.02	.20	.32
AC-FT	15	23	8.7	4.9	15	24	49	113	25	6.9	299	70

CAL YR 1983 TOTAL 674.45 MEAN 1.85 MAX 19 MIN .01 AC-FT 1340
WTR YR 1984 TOTAL 329.27 MEAN .90 MAX 34 MIN .01 AC-FT 653

07099220 LITTLE TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°37'37", long 104°51'55", in SW¼NW¼ sec.26, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, at right upstream end of bridge on military road No. 11, 1.0 mi downstream from State Highway 115, 2.8 mi upstream from mouth, and 9.1 mi southwest of Fountain.

DRAINAGE AREA.--9.59 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May to June 1979, August 1981 to September 1982

GAGE.--Water-stage recorder. Altitude of gage is 6,395 ft, from topographic map.

REMARKS.--Records good except those above 100 ft^3/s, which are poor. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1.30 ft^3/s; 942 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft^3/s, July 28, 1982; gage height, 4.57 ft; no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 20	1830	*11	1.17	Aug. 25	0230	11	1.17

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.45
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22
7	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00	.10
8	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00	.06
9	.00	.00	.00	.00	.00	.00	.00	.69	.00	.00	.00	.04
10	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.04
11	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.00	.03
12	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.03
13	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00	.02
14	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.02
15	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.01
16	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.91	.00	.00	.23	.00
18	.00	.00	.00	.00	.00	.00	.00	.85	.00	.00	.02	.00
19	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.03	.00
20	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.76	.00
21	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	1.9	.00
22	.00	.00	.00	.00	.00	.00	.00	.83	.00	.00	5.5	.00
23	.00	.00	.00	.00	.00	.00	.00	.47	.00	.00	5.5	.00
24	.00	.00	.00	.00	.00	.00	.00	.34	.00	.00	6.7	.00
25	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	11	.00
26	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	10	.00
27	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	8.6	.00
28	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	6.9	.15
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8	.26
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	3.2	.40
31	.00	---	.00	.00	---	.00	---	.00	---	.00	2.2	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	18.76	.00	.00	67.34	5.30
MEAN	.000	.000	.000	.000	.000	.000	.000	.61	.000	.000	2.17	.18
MAX	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	11	1.5
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	37	.00	.00	134	11

CAL YR 1983 TOTAL 476.63 MEAN 1.31 MAX 13 MIN .00 AC-FT 945
WTR YR 1984 TOTAL 91.40 MEAN .25 MAX 11 MIN .00 AC-FT 181

07099230 TURKEY CREEK ABOVE TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°27'37", long 104°49'19", in NW¼NE¼ sec.30, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 0.5 mi west of intersection of military roads 9 and 1, 1.6 mi upstream from Teller Reservoir Dam and 2.4 mi northeast of Stone City.

DRAINAGE AREA.--62.5 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft, from topographic map.

REMARKS.--Records good except those above 100 ft^3/s, which are fair. Diversions above gage for irrigation, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 4.39 ft^3/s; 3,180 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft^3/s, Aug. 20, 1982, gage height, 11.51 ft, from rating curve extended above 100 ft^3/s, on the basis of slope-area measurements at gage heights 8.04 ft, and 11.27 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 18	0145	b*805	8.87	Aug. 22	0315	520	8.69
Aug. 19	0245	210	8.15	Aug. 24	2315	41	7.55

b-From rating curve extended above 100 ft^3/s on basis of slope area measurements at gage heights 8.04 ft, and 11.27 ft.

Minimum daily discharge, 0.25 ft^3/s, July 23-25, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	1.2	1.3	.79	1.8	1.2	.72	.62	.38	.48	.44	5.0
2	.93	1.3	1.2	.88	2.0	1.2	.70	.63	.39	.70	.48	5.0
3	.93	1.4	1.2	.93	2.0	1.2	.70	.59	.37	.49	.28	5.0
4	.93	1.5	1.2	1.0	2.0	1.2	.70	.56	.35	.35	.39	5.0
5	.93	1.4	1.2	1.1	2.0	1.1	.68	.56	.35	.35	.30	4.9
6	.93	1.3	1.2	1.2	2.0	1.1	.65	.56	.35	.36	.31	4.8
7	.87	1.2	1.1	1.2	1.9	1.1	.66	.57	.35	.35	.34	4.7
8	.87	1.3	1.0	1.2	1.9	1.1	.68	.54	.35	.31	.35	4.6
9	.87	1.8	1.1	1.2	1.9	1.1	.65	.61	.35	.35	.33	4.9
10	.87	1.2	1.2	1.2	1.9	1.0	.69	.63	.35	.35	.31	4.6
11	.94	1.0	1.2	1.2	1.8	.98	.68	.65	.33	.31	.31	4.9
12	.93	.98	1.2	1.1	1.7	.94	.65	.65	.31	.28	.31	4.6
13	.93	.98	1.2	1.1	1.6	.94	.65	.65	.31	.28	.40	5.2
14	.93	1.0	1.2	1.1	1.6	.87	.61	.60	.31	.31	.28	5.5
15	.86	.98	1.3	1.0	1.6	.87	.60	.59	.31	.35	.38	5.2
16	.87	1.1	1.3	.90	1.6	.86	.60	.60	.35	.31	.27	5.2
17	.94	1.0	1.2	.80	1.5	.81	.60	.62	.32	.31	2.5	5.1
18	.99	.94	1.2	.80	1.4	.85	.60	.66	.31	.31	59	5.5
19	1.1	1.0	1.1	1.1	1.4	.82	.66	.65	.31	.31	31	5.6
20	1.1	.97	1.1	1.2	1.3	.80	.70	.61	.31	.31	11	5.8
21	1.1	.95	1.1	1.3	1.4	.78	.60	.60	.31	.31	13	6.0
22	1.1	.95	1.0	1.5	1.4	.78	.60	.57	.31	.28	62	6.0
23	1.1	.99	.95	1.6	1.4	.81	.60	.60	.31	.25	13	6.0
24	1.2	.95	.88	1.7	1.3	.81	.60	.60	2.2	.25	18	5.7
25	1.2	.94	.88	1.8	1.3	.83	.57	.55	.47	.25	13	5.6
26	1.2	.92	.88	1.8	1.3	.82	.55	.55	.35	.28	12	5.5
27	1.2	.94	.88	1.8	1.3	.81	.55	.55	.31	.28	9.7	5.5
28	1.2	.99	.86	1.8	1.2	.81	.54	.50	.32	.43	8.3	5.4
29	1.3	1.0	.81	1.8	1.2	.75	.55	.50	.42	.35	6.7	5.2
30	1.3	1.2	.70	1.8	---	.75	.60	.45	.47	.26	5.7	5.6
31	1.2	---	.70	1.8	---	.75	---	.43	---	.25	5.4	---
TOTAL	31.75	33.38	33.34	39.70	46.7	28.74	18.94	18.05	12.23	10.36	275.78	157.6
MEAN	1.02	1.11	1.08	1.28	1.61	.93	.63	.58	.41	.33	8.90	5.25
MAX	1.3	1.8	1.3	1.8	2.0	1.2	.72	.66	2.2	.70	62	6.0
MIN	.86	.92	.70	.79	1.2	.75	.54	.43	.31	.25	.27	4.6
AC-FT	63	66	66	79	93	57	38	36	24	21	547	313

CAL YR 1983 TOTAL 2130.04 MEAN 5.84 MAX 182 MIN .70 AC-FT 4220

WTR YR 1984 TOTAL 706.57 MEAN 1.93 MAX 62 MIN .25 AC-FT 1400

07099233 TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°26'33", long 104°49'31", in SE¼NW¼ sec.31, T.18 S., R.66W., in Pueblo County, Hydrologic Unit 11020002, at left upstream end of dam on Turkey Creek on Fort Carson Military Reservation, 1.4 mi upstream from Booth Gulch, and 2.0 mi east of Stone City.

DRAINAGE AREA.--71.5 mi^2.

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,453 ft, from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Reservoir is formed by an earthfill dam completed in about 1908. Maximum capacity of reservoir is 1,780 acre-ft at an uncontrolled spillway elevation of about 88 ft, 1980 survey. There is no controlled outlet from reservoir, however, considerable leakage occurs. Reservoir is used for recreation and for amphibious training for Fort Carson.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,210 acre-ft, June 21, 1980, elevation, 90.15 ft, from capacity curve extended above 88 ft; no contents, May 1 to June 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, about 1,460 acre-ft, Aug. 22, elevation and time unknown; minimum contents, 798 acre-ft, July 14-17, July 27 to Aug. 15, elevation, 81.32 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1160	1110	1090	1080	1040	1020	980	874	801	798	1380
2	1280	1160	1110	1090	1080	1040	1020	980	872	801	798	1380
3	1280	1160	1110	1090	1080	1040	1010	950	868	801	798	1380
4	1260	1160	1110	1090	1080	1040	1010	950	865	801	798	1370
5	1260	1160	1110	1090	1080	1030	1010	950	862	801	798	1370
6	1260	1150	1110	1090	1080	1030	1010	950	859	801	798	1360
7	1260	1150	1110	1090	1080	1030	1010	940	856	801	798	1350
8	1250	1150	1110	1090	1070	1030	1010	940	853	801	798	1340
9	1250	1140	1110	1090	1070	1030	1010	940	851	801	798	1340
10	1240	1140	1100	1090	1080	1030	1010	940	847	801	798	1330
11	1240	1140	1070	1090	1070	1030	1010	940	844	801	798	1330
12	1230	1140	1100	1090	1070	1030	1000	940	841	801	798	1320
13	1230	1140	1100	1080	1070	1030	1000	940	839	801	798	1320
14	1220	1110	1100	1090	1070	1030	1000	940	835	798	798	1310
15	1220	1130	1100	1090	1060	1020	1000	940	832	798	798	1300
16	1210	1130	1100	1090	1060	1020	1000	940	829	798	799	1300
17	1210	1130	1090	1080	1060	1020	1000	940	827	798	900	1290
18	1210	1130	1080	1080	1060	1020	1000	940	823	799	1220	1290
19	1200	1130	1080	1080	1060	1020	1000	940	820	799	1210	1280
20	1200	1130	1080	1080	1060	1020	1000	940	818	799	1210	1280
21	1200	1120	1090	1080	1060	1020	1000	940	815	799	1200	1270
22	1200	1120	1090	1080	1050	1020	1000	940	811	799	1460	1260
23	1190	1120	1090	1080	1050	1020	1000	940	808	799	1450	1260
24	1180	1120	1090	1080	1050	1020	1000	940	806	799	1450	1250
25	1180	1120	1090	1090	1050	1020	980	940	800	799	1430	1240
26	1180	1120	1090	1080	1040	1020	940	900	801	799	1420	1240
27	1180	1120	1080	1080	1040	1020	940	900	801	798	1400	1230
28	1170	1110	1090	1080	1040	1020	940	900	801	798	1390	1230
29	1170	1110	1090	1080	1040	1020	940	900	801	798	1390	1210
30	1170	1110	1090	1080	---	1020	980	880	801	798	1390	1210
31	1170	---	1090	1080	---	1020	---	878	---	798	1390	---
MAX	1280	1160	1110	1090	1080	1040	1020	980	874	801	1460	1380
MIN	1170	1110	1070	1080	1040	1020	940	878	800	798	798	1210

CAL YR 1983 MAX 1910 MIN 1070
WTR YR 1984 MAX 1460 MIN 798

NOTE.--NO GAGE-HEIGHT RECORD APR. 5 TO MAY 30, AUG. 17-29.

07099350 PUEBLO RESERVOIR NEAR PUEBLO, CO

LOCATION.--Lat 38°16'15", long 104°43'30", in NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at dam on Arkansas River 7 mi west of Pueblo.

DRAINAGE AREA.--4,669 mi².

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by concrete and earthfill dam. Storage began Jan. 9, 1974; dam completed in August 1975. Capacity, 357,700 acre-ft at elevation 4,898.70 ft, crest of spillway. Dead storage, 3,730 acre-ft, below elevation 4,764.00 ft, invert of river outlet. Reservoir is terminal reservoir of the Fryingpan-Arkansas project and is used to provide flood control, municipal and industrial supplies, and to fulfill irrigation requirements in the Arkansas River valley. Figures given are total contents.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 283,210 acre-ft, Mar. 14, 1984, elevation, 4,884.45 ft; minimum since appreciable storage was attained, 22,680 acre-ft, Nov. 13, 1974, elevation, 4,790.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 283,210 acre-ft, Mar. 14, elevation, 4,884.45 ft; minimum, 209,460 acre-ft, Nov. 8, elevation, 4,867.70 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,870.61	221,180	-
Oct. 31	4,868.03	210,760	-10,420
Nov. 30	4,870.55	220,940	+10,180
Dec. 31	4,875.59	242,240	+21,300
CAL YR 1983			+107,820
Jan. 31	4,879.98	262,100	+19,860
Feb. 29	4,882.89	275,730	+13,630
Mar. 31	4,884.31	282,530	+6,800
Apr. 30	4,880.51	264,560	-17,970
May 31	4,880.03	262,340	-2,220
June 30	4,879.91	261,780	-560
July 31	4,879.91	261,780	0
Aug. 31	4,877.48	250,720	-11,060
Sept. 30	4,875.64	242,550	-8,170
WTR YR 1984			+21,370

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07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

LOCATION.--Lat 38°16'17", long 104°43'06", in NE¼NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank 450 ft downstream from headgate of West Pueblo ditch, 0.4 mi downstream from Pueblo Dam, and 7 mi west of Pueblo.

DRAINAGE AREA.--4,670 mi^2.

PERIOD OF RECORD.--Streamflow records, October 1965 to current year. Water-quality data available, October 1965 to September 1970. Sediment data available October 1965 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft, from topographic map. Prior to Mar. 23, 1967, at site 730 ft upstream at datum 1.23 ft, higher. May 24, 1974, to Feb. 24, 1975, at site 2,000 ft downstream, at different datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres and return flow from irrigated areas. Flow completely regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1966-73), 643 ft^3/s; 465,900 acre-ft/yr, prior to completion of Pueblo Dam; 10 years (1975-84), 690 ft^3/s; 499,900 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft^3/s, Aug. 1, 1966, gage height, 9.4 ft, from floodmarks, present site and datum, from rating curve extended above 1,600 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 28 ft^3/s, May 11, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,500 ft^3/s at 1030 Aug. 20, gage height, 7.05 ft; minimum daily, 80 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	352	80	81	84	82	430	2130	4390	4100	1970	2190
2	734	396	80	81	84	82	420	2900	4570	4440	2090	1640
3	895	420	80	81	84	82	388	4960	4620	4330	2320	1450
4	1040	344	80	81	84	82	340	4960	4480	3990	1780	1300
5	1070	380	83	81	140	82	332	2230	3920	3500	2760	1210
6	1050	372	86	81	140	82	336	742	3280	2350	1570	1420
7	1000	364	80	81	84	82	440	542	2830	2400	1970	1580
8	928	344	80	81	84	82	864	316	2730	2310	2200	1410
9	874	328	80	82	83	82	1850	419	2500	2490	2270	1180
10	788	340	80	82	82	82	1420	712	2200	2920	2270	1110
11	730	356	80	82	82	82	455	748	2340	3750	2020	1020
12	682	356	80	83	82	82	3970	802	3080	3400	1800	838
13	420	356	80	83	82	82	2800	1030	3610	2700	1490	718
14	332	333	80	84	82	191	560	1040	1940	2380	1650	844
15	360	80	80	84	82	340	550	1110	2590	2270	2050	868
16	396	80	81	83	83	372	560	1570	3720	2380	2320	874
17	408	80	81	83	83	348	600	2320	4260	2180	2530	916
18	380	80	82	83	83	364	904	2120	4200	2080	2860	910
19	352	80	82	83	83	384	886	2240	3820	1820	3560	880
20	352	80	82	82	83	400	700	2030	3580	1550	5180	782
21	392	80	82	82	83	388	537	1970	3540	2140	3770	742
22	416	80	82	82	83	404	465	2240	3720	2470	2070	844
23	396	80	81	82	83	450	538	3090	4030	2310	3400	874
24	360	80	81	82	83	460	694	3700	4060	1960	4440	844
25	356	80	81	82	83	450	706	5040	3990	2070	4790	808
26	380	80	81	83	83	475	748	5200	4250	2170	4600	790
27	388	80	81	83	83	515	814	5220	4330	1510	2910	742
28	364	80	81	83	83	510	655	5210	4230	1810	3040	640
29	352	80	81	83	82	440	718	4470	4080	2080	3080	530
30	352	80	81	84	---	430	1140	4230	3960	1990	2940	560
31	352	---	81	84	---	450	---	4180	---	2560	2510	---
TOTAL	17402	6321	2510	2552	2520	8437	25820	79471	108850	80410	84210	30514
MEAN	561	211	81.0	82.3	86.9	272	861	2564	3628	2594	2716	1017
MAX	1070	420	86	84	140	515	3970	5220	4620	4440	5180	2190
MIN	332	80	80	81	82	82	332	316	1940	1510	1490	530
AC-FT	34520	12540	4980	5060	5000	16730	51210	157600	215900	159500	167000	60520

CAL YR 1983 TOTAL 345939 MEAN 948 MAX 5640 MIN 80 AC-FT 686200
WTR YR 1984 TOTAL 449017 MEAN 1227 MAX 5220 MIN 80 AC-FT 890600

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO

LOCATION.--Lat 38°51'17", long 104°52'39", in SE¼SW¼ sec.3, T.14 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft upstream from diversion to city of Colorado Springs, 0.5 mi east of bridge on U.S. Highway 24 near west city limits of Colorado Springs, and 1.0 mi downstream from Sutherland Creek.

DRAINAGE AREA.--103 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Altitude of gage is 6,110 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, and at times, transbasin diversion from Beaver Creek drainage and transmountain diversions from Colorado River basin.

AVERAGE DISCHARGE.--26 years, 13.9 ft³/s; 10,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s, Aug. 4, 1964, gage height, 5.27 ft, from rating curve extended above 190 ft³/s, on basis of slope-area measurements at gage heights 3.87, 4.52, and 5.27 ft; minimum daily, 2.0 ft³/s, Jan. 24, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 305 ft³/s at 1630 July 30, gage height, 3.71 ft; minimum daily, 6.0 ft³/s, July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	17	18	10	12	10	9.7	26	35	11	13	50
2	25	18	18	10	9.9	11	9.4	27	39	11	13	50
3	24	19	23	12	9.9	11	9.4	27	35	10	17	48
4	24	18	17	13	9.6	11	9.7	28	33	10	11	37
5	23	18	19	16	9.0	10	11	29	31	8.8	10	37
6	24	18	15	15	9.3	10	12	37	28	8.9	33	29
7	23	18	18	14	9.3	10	12	33	30	10	33	28
8	24	18	17	14	9.5	11	11	32	30	9.6	19	26
9	26	18	16	13	9.6	11	13	30	26	10	19	25
10	24	18	16	13	9.9	11	12	25	14	10	19	25
11	23	18	16	13	9.8	12	12	30	17	11	16	24
12	23	23	16	12	9.7	11	12	32	11	10	15	23
13	24	24	15	11	9.8	10	12	48	11	10	17	23
14	27	23	15	11	10	9.8	12	85	11	13	24	23
15	27	19	15	11	9.8	9.6	12	80	17	21	36	29
16	34	18	14	11	9.6	9.5	13	70	26	17	28	28
17	25	17	13	10	9.8	9.4	14	64	18	11	37	25
18	26	27	10	9.3	8.9	11	15	60	16	11	43	22
19	26	29	10	9.7	8.2	11	21	74	16	10	57	21
20	26	29	10	9.8	9.5	9.3	24	57	15	7.2	51	21
21	26	20	9.5	10	10	9.2	15	53	14	7.8	51	19
22	26	17	9.4	10	10	10	16	54	14	6.0	74	17
23	25	14	9.1	11	9.6	10	17	54	18	6.8	60	17
24	21	15	8.8	11	9.4	12	19	50	24	12	65	17
25	20	18	8.8	12	9.3	14	21	48	13	13	66	17
26	17	16	10	12	9.3	11	23	49	13	14	65	19
27	16	14	10	12	8.8	11	32	46	13	13	58	19
28	16	17	9.6	12	9.8	9.2	33	43	13	12	58	20
29	16	16	9.9	12	11	9.4	35	39	10	18	55	19
30	19	17	11	11	---	11	25	36	11	38	51	19
31	19	---	11	11	---	9.9	---	35	---	20	47	---
TOTAL	724	572	418.1	361.8	280.3	325.3	492.2	1401	602	381.1	1161	777
MEAN	23.4	19.1	13.5	11.7	9.67	10.5	16.4	45.2	20.1	12.3	37.5	25.9
MAX	34	29	23	16	12	14	35	85	39	38	74	50
MIN	16	14	8.8	9.3	8.2	9.2	9.4	25	10	6.0	10	17
AC-FT	1440	1130	829	718	556	645	976	2780	1190	756	2300	1540

CAL YR 1983 TOTAL 14641.1 MEAN 40.1 MAX 158 MIN 5.7 AC-FT 29040
WTR YR 1984 TOTAL 7495.8 MEAN 20.5 MAX 85 MIN 6.0 AC-FT 14870

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT								
05...	1525	23	295	--	10.5	--	--	
12...	1045	24	177	7.9	6.5	10.0	1.1	59
NOV								
01...	1100	17	228	--	7.5	--	--	
16...	1250	19	225	8.1	4.0	10.2	1.1	80
28...	1325	21	150	--	.5	--	--	
DEC								
14...	1215	14	259	7.9	.0	15.3	1.0	95
JAN								
05...	0935	15	240	--	2.5	--	--	
16...	1210	11	285	--	.0	12.0	.5	103
FEB								
16...	0820	7.8	331	7.5	.0	11.1	E2.1	128
16...	1120	10	290	--	1.0	--	--	
MAR								
15...	1230	9.8	315	--	8.0	12.0	2.0	114
15...	1615	9.6	260	--	7.0	--	--	
APR								
11...	1635	12	300	--	9.0	--	--	
19...	1230	23	238	7.4	5.5	10.0	2.0	75
MAY								
08...	0915	32	190	--	4.0	--	--	
11...	0930	42	214	7.1	6.5	13.2	2.8	68
JUN								
04...	1145	33	170	--	11.5	--	--	
08...	0930	30	329	7.9	9.5	9.3	1.1	110
12...	1105	12	320	--	13.5	--	--	
JUL								
03...	1125	10	350	--	16.0	--	--	
11...	1315	10	311	8.2	17.0	7.3	1.4	106
30...	1340	12	265	--	17.0	--	--	
AUG								
03...	1005	14	235	7.8	14.5	9.4	1.1	83
28...	1445	59	140	--	14.0	--	--	
SEP								
25...	0915	18	230	--	7.0	--	--	
28...	1000	20	233	--	5.5	11.2	--	81

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	CYANIDE TOTAL (MG/L AS CN)
OCT									
12...	10	5.6	25	.40	.030	.57	.60	1.0	<.01
NOV									
16...	13	8.1	<1	.60	.040	.66	.70	1.3	<.01
DEC									
14...	13	10	13	.80	<.010	--	.40	1.2	<.01
JAN									
16...	17	13	<1	.90	.010	--	<.20	--	--
FEB									
16...	17	15	13	1.0	.130	.37	.50	1.5	--
MAR									
15...	19	13	20	1.0	.080	.32	.40	1.4	--
APR									
19...	14	9.5	166	.70	.080	1.0	1.1	1.8	--
MAY									
11...	14	8.4	366	.50	.050	.25	.30	.80	--
JUN									
08...	19	14	11	.80	.050	.75	.80	1.6	--
JUL									
11...	17	11	13	.70	.080	.32	.40	1.1	--
AUG									
03...	14	8.9	668	.60	.040	1.5	1.5	2.1	--
SEP									
28...	11	9.3	13	.70	<.010	--	.20	.90	--

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07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 12...	1	10	10	730	80	<1	70	30	30
NOV 16...	<1	<10	4	430	80	4	60	50	110
DEC 14...	<1	<10	7	850	110	3	100	60	20
JAN 16...	<1	<10	3	340	40	<1	70	60	20
FEB 16...	1	<10	4	640	70	8	100	90	20
MAR 15...	<1	80	5	730	50	4	100	90	20
APR 19...	1	<10	12	6500	30	24	330	60	60
MAY 11...	<1	<10	14	12000	80	33	570	50	110
JUN 08...	<1	<10	4	540	<10	<1	80	60	20
JUL 11...	<1	<10	5	870	310	5	110	30	20
AUG 03...	<1	<10	4	7700	90	7	310	20	40
SEP 28...	<1	<10	3	1000	620	4	80	90	20

07103747 MONUMENT CREEK AT PALMER LAKE, CO

LOCATION.--Lat 39°06'07", long 104°53'27", in SE¼SE¼ sec.9, T.11 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.9 mi upstream from Monument Lake, 1.5 mi downstream from North Monument Creek, and 1.9 mi southeast of town of Palmer Lake.

DRAINAGE AREA.--25.9 mi².

PERIOD OF RECORD.--Streamflow records, February 1977 to current year. Water-quality data available, April 1977 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 6,950 ft, from topographic map. Record not equivalent to former downstream site.

REMARKS.--Records good except those for winter period, which are poor. Storage and diversions above station for municipal supply of Palmer Lake. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1978-84), 7.66 ft³/s; 5,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 216 ft³/s, Aug. 2, 1981, from rating curve extended above 130 ft³/s, gage height, 2.07 ft, from floodmark; minimum daily, 0.10 ft³/s, many days in 1978-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 155 ft³/s at 0215 May 15, gage height, 1.94 ft; minimum daily, 2.4 ft³/s, Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.3	4.5	3.0	3.5	4.2	14	58	27	8.5	11	6.8
2	5.2	4.3	4.1	2.9	3.3	4.8	15	59	30	8.5	9.0	6.0
3	5.2	4.3	3.5	2.9	3.5	4.1	16	60	28	8.5	7.7	5.8
4	5.2	4.1	4.1	3.1	3.1	4.0	17	60	24	8.2	7.3	5.3
5	5.2	4.2	4.6	3.3	3.3	4.0	17	61	21	8.2	6.9	5.1
6	5.2	4.2	4.6	3.3	3.1	4.1	18	63	19	8.0	6.5	4.5
7	5.1	4.2	4.5	3.2	3.1	4.2	21	63	18	8.0	6.2	4.2
8	5.1	4.2	4.4	3.2	2.7	4.4	26	63	17	8.0	6.2	4.1
9	5.1	4.4	4.3	3.1	2.9	5.0	30	67	16	7.8	5.8	4.1
10	4.9	4.4	4.2	3.1	3.1	5.2	34	75	15	7.8	5.5	3.7
11	4.7	4.4	4.2	3.4	6.5	4.9	35	92	15	7.8	5.2	3.8
12	4.9	4.4	4.2	3.3	3.3	5.6	34	116	14	7.6	4.9	3.6
13	4.9	4.4	4.1	3.1	2.9	5.1	34	128	13	7.7	4.6	3.6
14	4.9	4.4	3.9	2.8	2.9	6.5	33	140	13	7.8	4.4	3.7
15	4.8	4.2	3.9	2.7	8.1	7.7	34	143	13	7.8	4.1	3.8
16	4.7	4.0	3.7	2.8	3.4	7.6	35	128	14	8.0	3.9	4.0
17	4.8	3.9	3.4	2.6	3.2	7.6	38	116	12	8.0	4.2	5.9
18	4.8	4.2	3.2	2.5	3.1	8.3	42	105	11	7.7	5.3	4.3
19	4.5	4.2	2.9	2.5	3.0	8.0	45	81	11	7.6	8.6	3.8
20	4.4	4.3	2.7	2.5	3.2	7.6	46	71	11	8.0	8.0	3.5
21	4.3	4.6	2.5	2.7	3.5	8.7	46	71	11	7.8	11	3.5
22	4.3	4.5	2.4	2.8	3.8	9.4	47	65	11	7.4	19	3.3
23	4.3	4.3	2.5	2.8	3.7	9.7	48	64	9.4	7.0	16	3.2
24	4.1	4.2	2.5	2.9	4.2	10	51	56	9.3	7.0	13	2.9
25	4.1	4.2	2.6	3.0	4.0	11	54	50	9.4	7.0	13	3.3
26	4.1	4.6	2.7	3.2	3.8	11	55	49	9.6	7.4	10	3.3
27	4.1	4.2	2.9	3.2	3.7	12	56	45	9.3	7.8	9.5	3.5
28	4.0	4.2	2.8	3.2	3.8	12	56	41	8.8	7.8	8.9	4.3
29	3.8	4.2	2.8	3.1	4.0	13	57	36	8.5	8.1	7.9	4.5
30	3.8	4.2	3.0	3.5	---	14	58	32	8.5	8.2	7.3	4.8
31	3.9	---	3.2	3.4	---	14	---	28	---	8.8	6.5	---
TOTAL	143.9	128.2	108.9	93.1	105.7	237.7	1112	2286	436.8	243.8	247.4	126.2
MEAN	4.64	4.27	3.51	3.00	3.64	7.67	37.1	73.7	14.6	7.86	7.98	4.21
MAX	5.5	4.6	4.6	3.5	8.1	14	58	143	30	8.8	19	6.8
MIN	3.8	3.9	2.4	2.5	2.7	4.0	14	28	8.5	7.0	3.9	2.9
AC-FT	285	254	216	185	210	471	2210	4530	866	484	491	250

CAL YR 1983 TOTAL 6935.9 MEAN 19.0 MAX 136 MIN 1.5 AC-FT 13760
WTR YR 1984 TOTAL 5269.7 MEAN 14.4 MAX 143 MIN 2.4 AC-FT 10450

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to september 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT								
06...	1010	5.1	213	--	10.5	--	--	--
31...	1320	3.9	160	--	10.5	--	--	--
DEC								
01...	1400	4.6	160	--	3.0	--	--	--
JAN								
04...	1115	3.1	160	--	2.5	--	--	--
16...	0910	2.8	173	7.9	.0	10.7	5.0	65
FEB								
10...	1250	2.9	170	--	4.5	--	--	--
15...	1015	8.1	165	7.4	.0	11.2	1.6	62
MAR								
15...	0730	6.5	155	--	2.0	10.8	1.4	56
15...	1235	6.5	150	--	6.5	--	--	--
APR								
12...	1210	31	105	--	6.5	--	--	--
19...	0800	45	94	7.3	3.0	11.7	1.3	29
MAY								
08...	1120	63	85	--	6.5	--	--	--
10...	1020	68	86	8.1	6.5	13.6	2.7	24
JUN								
05...	1155	21	115	--	13.5	--	--	--
07...	0945	19	120	8.3	10.0	11.1	1.5	38
25...	1130	9.5	160	--	16.0	--	--	--
JUL								
02...	1510	8.7	115	--	21.5	--	--	--
11...	0820	7.8	185	8.1	13.5	9.7	1.1	64
31...	0940	8.9	160	--	15.0	--	--	--
AUG								
02...	1100	8.5	152	7.5	17.5	9.0	1.2	58
16...	1625	4.5	140	--	24.0	--	--	--
27...	1215	9.8	190	--	19.5	--	--	--
SEP								
27...	1145	3.7	190	7.9	14.0	6.8	--	76

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
JAN								
16...	13	3.4	28	.20	<.010	--	<.20	--
FEB								
15...	12	3.9	129	.20	.230	.57	.80	1.0
MAR								
15...	13	3.8	44	.20	.040	.56	.60	.80
APR								
19...	11	1.6	52	.30	.090	.41	.50	.80
MAY								
10...	11	1.2	79	.10	.060	.84	.90	1.0
JUN								
07...	11	2.1	7	<.10	.030	.47	.50	--
JUL								
11...	12	3.1	<2	.10	.070	.33	.40	.50
AUG								
02...	11	2.8	32	.20	.030	.47	.50	.70
SEP								
27...	10	3.2	1	.10	<.010	--	<.20	--

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
JAN 16...	<1	<10	5	1100	50	3	90	50	100
FEB 15...	<1	<10	5	4200	70	9	110	20	80
MAR 15...	<1	<10	3	3000	100	3	70	20	20
APR 19...	<1	<10	5	3500	110	4	80	<10	40
MAY 10...	<1	<10	5	4600	60	9	150	20	40
JUN 07...	<1	<10	4	660	40	<1	40	20	30
JUL 11...	<1	<10	4	420	70	1	80	40	10
AUG 02...	<1	<10	3	1900	120	<1	80	30	<10
SEP 27...	<1	<10	<1	370	140	<1	80	80	20

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'14", long 104°54'08", in SW¼SW¼ sec.28, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 500 ft upstream from diversion to city of Colorado Springs water-treatment plant, 2.7 mi south of U.S. Air Force Academy chapel, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--14.9 mi^2.

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,180 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions from Colorado River basin, storage reservoirs, and operation of water-supply system. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 2.15 ft^3/s; 1,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80 ft^3/s, May 8, 1980, gage height, 2.73 ft, from rating curve extended above 34 ft^3/s; maximum gage height, 3.88 ft, Dec. 22, 1983 (backwater from ice); no flow many days in 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft^3/s at 1815 May 14, gage height, 1.87 ft; maximum gage height, 3.88 ft at 0245 Dec. 22 (backwater from ice); minimum daily discharge, 0.23 ft^3/s, Feb. 2-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.45	.32	3.7	.26	.29	.42	4.3	2.5	.86	.75	1.5
2	.33	.51	.31	3.7	.23	.28	.45	4.3	2.4	1.1	.59	1.4
3	.37	.50	.31	3.7	.23	.27	.41	4.5	2.2	1.2	.50	1.4
4	.37	.51	.31	3.7	.27	.27	.47	4.9	2.1	.95	.59	1.3
5	.36	.51	.31	2.0	.27	.27	.73	5.2	1.9	.85	.46	1.2
6	.34	.52	.32	.30	.27	.30	1.0	5.3	1.8	.82	.70	1.1
7	.32	.51	.33	.26	.28	.33	1.4	5.2	1.7	.77	.66	1.1
8	.36	.53	.34	.25	.28	.39	1.6	5.1	1.6	.71	.50	1.1
9	.36	.40	.31	.25	.27	.32	1.6	5.4	1.5	.69	.48	1.0
10	.34	.40	.31	.62	.30	.32	1.7	6.4	1.5	.66	.45	1.1
11	.34	.42	.31	.62	.35	.31	1.8	8.1	1.4	.63	.41	1.1
12	.36	.41	.31	.62	.38	.32	1.6	9.8	1.3	.57	.40	1.0
13	.36	.40	.31	.28	.37	.33	1.5	11	1.2	.54	.40	.97
14	.35	.40	.31	.28	.30	.51	1.4	12	1.2	.62	.58	1.0
15	.35	.35	.31	.28	.27	.44	1.4	11	1.4	.62	.65	1.1
16	.40	.35	.31	.27	.27	.43	1.5	11	1.4	.55	.49	1.2
17	.35	.33	.30	.26	.27	.40	1.8	9.7	1.2	.54	.47	1.2
18	.35	.38	.29	.25	.27	.33	2.0	8.9	1.1	.50	1.1	.97
19	.35	.32	.29	.25	.27	.33	2.1	7.6	1.0	.46	1.5	.91
20	.35	.51	.29	.26	.27	.35	2.2	6.7	1.1	.50	1.1	.87
21	.35	.40	.35	.27	.33	.39	2.1	5.9	1.1	.52	1.2	.82
22	.35	.37	.40	.28	.39	.37	2.2	5.4	.92	.42	2.1	.79
23	.40	.37	2.0	.29	.35	.39	2.8	4.8	1.8	.40	1.7	.76
24	.40	.37	2.5	.30	.37	.43	4.2	4.3	1.7	.39	1.7	.72
25	.35	.37	3.5	.30	.36	.46	5.6	3.9	1.3	.38	2.5	.73
26	.35	.34	4.0	.32	.31	.45	5.7	3.7	1.2	.51	1.9	.77
27	.35	.54	3.5	.32	.38	.48	5.3	3.4	1.2	.62	1.8	.75
28	.35	.34	3.5	.29	1.0	.48	4.8	3.1	1.1	.48	1.8	.84
29	.35	.31	3.5	.30	.35	.41	4.5	2.9	.95	.47	1.7	.84
30	.35	.31	3.7	.31	---	.45	4.2	2.8	.89	.50	1.6	.81
31	.50	---	3.7	.26	---	.44	---	2.6	---	.75	1.6	---
TOTAL	11.15	12.43	36.85	25.09	9.52	11.54	68.48	189.2	43.66	19.58	32.38	30.35
MEAN	.36	.41	1.19	.81	.33	.37	2.28	6.10	1.46	.63	1.04	1.01
MAX	.50	.54	4.0	3.7	1.0	.51	5.7	12	2.5	1.2	2.5	1.5
MIN	.32	.31	.29	.25	.23	.27	.41	2.6	.89	.38	.40	.72
AC-FT	22	25	73	50	19	23	136	375	87	39	64	60

CAL YR 1983 TOTAL 675.77 MEAN 1.85 MAX 11 MIN .13 AC-FT 1340
WTR YR 1984 TOTAL 490.23 MEAN 1.34 MAX 12 MIN .23 AC-FT 972

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07103950 KETTLE CREEK NEAR BLACK FOREST, CO

LOCATION.--Lat 39°00'14", long 104°44'21", in NE¼SE¼ sec.14, T.12 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank 400 ft, (revised), downstream from bridge on Milan Rd., 1.2 mi downstream from Burgess Creek, and 2.2 mi southwest of Black Forest.

DRAINAGE AREA.--9.01 mi².

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,980 ft, from topographic map. May 1976 to Mar. 17, 1983 at datum 3.0 ft, lower.

REMARKS.--Records fair except those for winter period, and those for period of no gage-height record, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 1.11 ft³/s; 804 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s, Aug. 5, 1981, gage height, 4.41 ft, from floodmark, from rating curve extended above 20 ft³/s, on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 15	1325	31	3.21	Aug. 2	1730	14	2.33
Apr. 24	1800	29	3.11	Aug. 6	1400	*78	3.37
July 15	1515	18	2.46				

Minimum daily discharge, 0.19 ft³/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	.33	.34	.29	.35	.40	3.9	9.4	4.6	1.7	1.7	1.5
2	.61	.35	.33	.30	.31	.37	3.7	9.4	3.4	1.3	3.0	1.5
3	.59	.37	.32	.32	.31	.35	4.3	9.4	3.7	1.2	2.5	1.5
4	.61	.39	.32	.33	.30	.35	5.0	9.2	3.5	1.2	1.8	1.5
5	.58	.39	.29	.33	.30	.36	3.8	9.0	3.3	1.3	1.5	1.4
6	.58	.42	.31	.32	.32	.38	3.3	8.8	3.5	1.4	7.4	1.4
7	.56	.43	.31	.32	.32	.39	3.5	8.6	3.5	1.5	2.4	1.5
8	.56	.53	.33	.32	.32	.38	4.2	8.3	3.5	1.3	2.0	1.5
9	.56	.60	.33	.31	.32	.45	4.6	7.2	3.2	1.2	1.6	1.4
10	.54	.54	.33	.30	.33	.51	4.7	6.5	3.2	1.0	1.5	1.3
11	.50	.62	.33	.29	.30	.84	4.8	5.1	3.2	.96	1.4	1.4
12	.51	.59	.33	.28	.32	.88	5.2	5.0	3.0	1.0	1.4	1.3
13	.51	.59	.30	.26	.33	.98	5.4	5.0	3.0	.95	1.4	1.3
14	.50	.61	.29	.24	.35	.91	6.5	5.4	2.8	.92	1.4	1.3
15	.49	.51	.27	.24	.33	.74	7.9	4.5	2.7	2.0	1.3	1.3
16	.48	.54	.26	.22	.34	.63	6.9	3.9	2.5	.98	1.3	1.1
17	.48	.56	.24	.21	.34	.65	6.0	3.9	2.1	.96	1.3	.98
18	.49	.70	.23	.20	.32	.78	6.6	4.1	1.7	1.0	1.5	.98
19	.49	.78	.22	.20	.30	1.3	7.6	4.5	1.6	1.0	2.3	.98
20	.47	.53	.22	.21	.32	1.1	10	3.8	1.6	1.3	2.2	1.0
21	.47	.44	.22	.22	.35	1.5	12	4.0	1.5	1.1	2.8	.98
22	.45	.37	.21	.22	.40	2.0	16	4.2	1.5	1.2	2.5	.94
23	.44	.37	.20	.23	.37	2.1	20	4.3	1.7	1.6	2.8	.98
24	.43	.38	.19	.24	.37	2.1	23	4.2	2.1	1.4	3.3	.94
25	.43	.40	.20	.24	.36	2.2	15	4.1	2.1	1.6	2.8	1.1
26	.43	.33	.21	.24	.34	2.6	12	4.5	1.9	1.9	2.5	1.2
27	.41	.31	.22	.25	.34	2.7	10	4.3	2.2	1.5	2.4	1.3
28	.42	.31	.23	.27	.39	3.0	9.6	4.0	1.9	1.4	2.0	1.4
29	.42	.30	.23	.28	.45	3.3	9.5	4.0	2.1	1.3	1.8	1.5
30	.44	.28	.24	.29	---	3.3	9.5	3.6	1.9	1.1	1.6	1.4
31	.40	---	.26	.30	---	3.9	---	4.4	---	1.2	1.5	---
TOTAL	15.44	13.87	8.31	8.27	9.80	41.45	244.5	176.6	78.5	39.47	66.9	37.88
MEAN	.50	.46	.27	.27	.34	1.34	8.15	5.70	2.62	1.27	2.16	1.26
MAX	.61	.78	.34	.33	.45	3.9	23	9.4	4.6	2.0	7.4	1.5
MIN	.40	.28	.19	.20	.30	.35	3.3	3.6	1.5	.92	1.3	.94
AC-FT	31	28	16	16	19	82	485	350	156	78	133	75

CAL YR 1983 TOTAL 782.15 MEAN 2.14 MAX 11 MIN .12 AC-FT 1550
WTR YR 1984 TOTAL 740.99 MEAN 2.02 MAX 23 MIN .19 AC-FT 1470

NOTE.--NO GAGE-HEIGHT RECORD DEC. 19 TO MAR. 9.

07104000 MONUMENT CREEK AT PIKEVIEW, CO

LOCATION.--Lat 38°55'04", long 104°49'05", in NW¼SE¼ sec.18, T.13 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of abandoned bridge at northeast edge of Pikeview, 600 ft upstream from unnamed tributary, 1,200 ft upstream from bridge on U.S. Interstate Highway I-25, and 0.7 mi downstream from Dry Creek.

DRAINAGE AREA.--204 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1949, January 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,203.26 ft, National Geodetic Vertical Datum of 1929. September 1938 to October 1949, nonrecording gage at present site at datum 0.10 ft, lower.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, municipal use and return flow from irrigation, and sewage-effluent discharge.

AVERAGE DISCHARGE.--19 years (water years 1939-49, 1977-84), 26.6 ft³/s; 19,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,750 ft³/s, Aug. 5, 1981, gage height, 7.48 ft, from rating curve extended above 100 ft³/s, on basis of slope-area measurement of peak flow; no flow July 24, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1935, reached a stage of about 14 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s at 1630 June 23, gage height, 4.77 ft, from rating curve extended above 250 ft³/s, on basis of slope-area measurements of peak flow; minimum daily, 12 ft³/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	16	16	22	31	73	107	76	39	38	45
2	20	18	15	17	21	37	72	113	79	43	56	46
3	22	20	16	18	20	29	64	121	80	38	40	45
4	18	22	17	18	20	32	74	131	79	36	48	42
5	18	25	14	18	19	27	87	141	79	35	42	39
6	18	23	15	17	20	28	99	150	78	35	84	39
7	18	20	16	17	22	32	116	160	73	34	51	38
8	17	20	18	17	20	34	125	155	69	33	49	35
9	17	21	18	15	24	36	117	158	64	32	45	34
10	18	20	17	15	28	37	113	165	64	32	45	32
11	17	22	16	16	22	38	117	170	63	32	44	30
12	18	20	17	16	21	38	103	150	62	31	43	28
13	18	17	15	16	25	39	95	165	63	30	43	27
14	18	18	14	15	21	38	95	170	62	31	43	25
15	18	15	13	14	21	42	95	160	62	31	51	29
16	20	16	14	14	22	42	101	129	62	30	44	32
17	22	14	14	14	24	42	107	127	56	29	41	29
18	23	17	14	14	25	45	119	127	56	28	70	28
19	24	14	14	14	25	44	124	121	52	30	48	27
20	22	14	14	14	25	42	131	119	51	29	39	23
21	19	14	14	15	26	49	117	111	49	28	50	22
22	18	14	13	16	29	54	123	105	48	28	61	18
23	20	14	12	17	29	55	119	95	111	27	52	20
24	23	16	14	18	30	57	125	91	56	25	65	16
25	22	17	17	18	30	63	115	89	52	25	69	17
26	18	14	15	18	30	62	105	84	48	31	64	20
27	17	14	15	18	28	70	93	84	46	31	60	22
28	21	14	15	19	30	67	91	80	43	30	60	22
29	17	14	14	19	25	72	105	79	42	31	54	24
30	15	14	17	19	---	78	103	76	40	32	49	25
31	15	---	18	20	---	72	---	76	---	38	48	---
TOTAL	591	520	471	512	704	1432	3123	3809	1865	984	1596	879
MEAN	19.1	17.3	15.2	16.5	24.3	46.2	104	123	62.2	31.7	51.5	29.3
MAX	24	25	18	20	30	78	131	170	111	43	84	46
MIN	15	14	12	14	19	27	64	76	40	25	38	16
AC-FT	1170	1030	934	1020	1400	2840	6190	7560	3700	1950	3170	1740

CAL YR 1983 TOTAL 22055.3 MEAN 60.4 MAX 267 MIN 6.7 AC-FT 43750
WTR YR 1984 TOTAL 16486.0 MEAN 45.0 MAX 170 MIN 12 AC-FT 32700

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'59", long 104°49'20", in NE¼SW¼ sec.19, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 31 ft upstream from bridge on Nevada Ave. in Colorado Springs, 100 ft downstream from mouth of Cheyenne Creek, and 1.3 mi downstream from Monument Creek.

DRAINAGE AREA.--392 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1924, January 1976 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft, from topographic map. Prior to Oct. 1, 1972, nonrecording gage at same site at different datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--11 years (water years 1922-24, 1977-84), 59.3 ft³/s; 42,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft³/s, July 29, 1978, gage height, 7.15 ft, from rating curve extended above 2,400 ft³/s; minimum daily, 2.0 ft³/s, Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 ft³/s at 1830 June 23, gage height, 6.31 ft; from rating curve extended on basis of slope-area measurement of peak flow; minimum daily, 20 ft³/s, July 23,25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	38	51	36	29	27	65	170	133	42	47	96
2	58	38	53	37	25	30	60	180	178	44	82	99
3	56	40	53	39	29	29	51	196	134	41	72	92
4	54	36	48	42	30	35	48	210	116	24	96	77
5	53	35	43	49	29	31	67	240	97	22	54	75
6	54	36	32	46	31	31	77	260	91	24	144	58
7	50	36	45	43	29	34	128	240	85	24	75	44
8	57	38	47	41	29	36	131	230	72	25	46	44
9	64	37	40	38	27	40	116	228	65	26	44	43
10	59	36	40	39	31	41	111	226	58	28	43	41
11	52	41	41	39	29	44	117	287	68	31	29	44
12	56	46	42	36	27	41	102	355	45	32	27	49
13	53	44	36	35	36	43	95	406	57	22	47	44
14	53	41	36	33	36	50	92	427	49	23	38	43
15	50	38	39	32	32	62	91	444	50	50	77	86
16	53	36	37	31	33	61	91	434	71	61	56	97
17	47	38	32	30	26	54	103	413	57	42	60	72
18	43	68	32	30	24	62	120	392	55	36	213	52
19	46	51	33	33	26	54	136	375	51	29	296	46
20	43	46	30	35	31	52	228	317	42	27	216	43
21	44	44	28	40	34	52	167	290	33	26	237	41
22	44	38	27	46	32	93	148	269	32	22	326	34
23	44	34	27	52	29	81	165	245	150	20	207	33
24	44	32	28	48	27	71	202	213	93	23	222	34
25	44	44	30	46	30	79	226	197	68	20	247	35
26	43	39	37	45	22	73	218	192	67	44	201	34
27	40	30	33	37	26	92	193	181	72	53	168	38
28	43	36	31	36	27	56	181	160	62	47	149	55
29	42	39	32	41	28	56	209	134	53	68	134	63
30	44	44	36	35	---	82	175	120	49	103	112	57
31	44	---	38	30	---	77	---	111	---	62	102	---
TOTAL	1532	1199	1157	1200	844	1669	3913	8142	2253	1141	3867	1669
MEAN	49.4	40.0	37.3	38.7	29.1	53.8	130	263	75.1	36.8	125	55.6
MAX	64	68	53	52	36	93	228	444	178	103	326	99
MIN	40	30	27	30	22	27	48	111	32	20	27	33
AC-FT	3040	2380	2290	2380	1670	3310	7760	16150	4470	2260	7670	3310

CAL YR 1983 TOTAL 47668 MEAN 131 MAX 464 MIN 13 AC-FT 94550
WTR YR 1984 TOTAL 28586 MEAN 78.1 MAX 444 MIN 20 AC-FT 56700

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT								
06...	1140	19	330	--	15.0	--	--	--
12...	0930	17	353	8.3	7.5	9.9	2.0	98
NOV								
01...	1005	21	338	--	9.0	--	--	--
16...	1000	15	328	8.0	3.0	11.6	1.6	93
DEC								
14...	0955	12	377	7.7	.0	12.0	1.4	100
JAN								
10...	1235	18	340	--	.5	--	--	--
16...	1100	14	375	8.0	.0	13.2	1.4	95
FEB								
10...	1620	36	280	--	1.0	--	--	--
15...	1520	17	325	7.9	2.0	11.0	E4.0	79
MAR								
15...	1010	40	275	--	6.0	10.0	4.8	76
16...	0950	40	300	--	2.5	--	--	--
APR								
13...	1240	93	210	--	11.0	--	--	--
19...	1020	109	178	7.6	5.0	12.8	3.2	43
MAY								
08...	1630	147	150	--	14.5	--	--	--
10...	1320	165	148	7.4	14.0	9.3	4.0	35
JUN								
07...	1145	73	217	7.6	14.5	8.0	2.1	54
25...	1425	50	--	--	19.0	--	--	--
JUL								
03...	1005	38	260	--	19.5	--	--	--
11...	1020	32	289	8.0	19.5	7.9	1.6	75
31...	1425	37	290	--	21.0	--	--	--
AUG								
02...	1240	48	250	7.9	23.0	7.2	2.6	70
28...	1310	59	285	--	24.0	--	--	--
SEP								
25...	1100	16	340	--	13.0	--	--	--
27...	1405	22	359	8.1	18.5	7.4	--	95

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	CYANIDE TOTAL (MG/L AS CN)
OCT									
12...	47	11	117	1.4	.070	1.0	1.1	2.5	<.01
NOV									
16...	50	11	122	1.5	.090	.91	1.0	2.5	<.01
DEC									
14...	60	13	3	1.9	.130	.77	.90	2.8	<.01
JAN									
16...	59	14	112	2.0	.180	.62	.80	2.8	--
FEB									
15...	50	15	317	1.5	.390	.71	1.1	2.6	--
MAR									
15...	36	.20	535	1.4	.700	1.2	1.9	3.3	--
APR									
19...	23	6.5	515	.60	.130	.87	1.0	1.6	--
MAY									
10...	20	4.6	510	.30	.060	.24	.30	.60	--
JUN									
07...	29	7.0	158	.60	.030	.57	.60	1.2	--
JUL									
11...	38	9.2	125	1.0	.060	.74	.80	1.8	--
AUG									
02...	29	8.3	884	.60	.040	3.0	3.0	3.6	--
SEP									
27...	49	11	91	1.6	.010	.89	.90	2.5	--

E ESTIMATED.

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 12...	1	10	13	2300	50	4	80	10	60
NOV 16...	<1	<10	5	2800	50	6	120	20	30
DEC 14...	1	<10	13	2400	70	5	110	30	40
JAN 16...	<1	<10	7	3800	40	6	150	30	170
FEB 15...	<1	<10	18	15000	70	39	430	40	120
MAR 15...	<1	70	13	13000	40	49	330	20	80
APR 19...	1	<10	11	12000	70	10	340	20	70
MAY 10...	<1	<10	12	12000	60	19	320	20	90
JUN 07...	<1	<10	14	4200	30	<1	100	10	50
JUL 11...	<1	<10	7	4000	40	6	110	10	50
AUG 02...	<1	<10	18	15000	40	18	480	<10	170
SEP 27...	<1	<10	5	2900	60	<1	80	10	30

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°50'14", long 104°49'44", in NW¼NW¼ sec.18, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003 at bridge on Bijou Street in Colorado Springs.

PERIOD OF RECORD.--December 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 12...	1130	17	493	8.1	10.0	9.5	1.4	125	100
NOV 16...	1140	18	450	8.3	5.5	10.2	1.7	118	91
DEC 14...	1120	12	502	8.3	.0	13.1	4.2	123	100
JAN 16...	1320	9.0	585	8.5	.0	10.5	5.2	111	110
FEB 16...	0940	12	480	7.9	.0	12.8	E2.7	114	100
MAR 15...	1100	40	335	--	9.0	9.2	13	86	54
APR 19...	1130	112	210	7.3	6.5	--	1.8	50	29
MAY 10...	1515	195	158	7.4	16.5	8.6	4.2	39	24
JUN 07...	1410	59	258	8.2	19.5	7.8	1.8	62	42
JUL 11...	1115	24	401	7.8	23.0	7.8	1.6	97	64
AUG 03...	0830	54	330	7.2	16.0	9.4	.9	86	52
SEP 27...	1525	23	478	8.2	18.5	8.1	--	120	86

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	CYANIDE TOTAL (MG/L AS CN)
OCT 12...	13	156	1.8	.050	1.2	1.2	3.0	<.01
NOV 16...	13	205	1.6	.060	1.4	1.5	3.1	<.01
DEC 14...	14	236	2.1	.110	.59	.70	2.8	<.01
JAN 16...	17	580	2.6	.020	1.2	1.2	3.8	--
FEB 16...	18	220	1.9	.170	.93	1.1	3.0	--
MAR 15...	13	905	1.8	.580	1.2	1.8	3.6	--
APR 19...	7.2	595	.70	.090	1.2	1.3	2.0	--
MAY 10...	5.2	486	.40	.070	--	<.20	--	--
JUN 07...	7.9	172	.70	.040	2.0	2.0	2.7	--
JUL 11...	10	260	1.2	.060	.84	.90	2.1	--
AUG 03...	14	944	.80	.010	2.0	2.0	2.8	--
SEP 27...	14	181	1.9	<.010	--	.80	2.7	--

E ESTIMATED.

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT									
12...	1	<10	14	3400	60	4	100	10	70
NOV									
16...	<1	<10	11	6000	50	11	160	<10	60
DEC									
14...	<1	10	11	6100	30	11	150	10	50
JAN									
16...	1	<10	25	15000	40	40	380	10	130
FEB									
16...	<1	<10	12	5900	30	15	140	<10	60
MAR									
15...	<1	<10	21	25000	40	59	750	<10	150
APR									
19...	<1	<10	15	15000	50	17	350	10	80
MAY									
10...	<1	<10	14	13000	70	28	360	10	90
JUN									
07...	2	<10	8	5600	60	6	130	10	50
JUL									
11...	1	<10	10	6600	40	10	160	<10	50
AUG									
03...	<1	<10	15	19000	50	21	430	<10	110
SEP									
27...	<1	<10	9	6800	120	6	150	10	50

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'59", long 104°49'20", in NE$\frac{1}{4}$SW$\frac{1}{4}$ sec.19, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 31 ft upstream from bridge on Nevada Ave. in Colorado Springs, 100 ft downstream from mouth of Cheyenne Creek, and 1.3 mi downstream from Monument Creek.

DRAINAGE AREA.--392 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1924, January 1976 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft, from topographic map. Prior to Oct. 1, 1972, nonrecording gage at same site at different datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--11 years (water years 1922-24, 1977-84), 59.3 ft^3/s; 42,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft^3/s, July 29, 1978, gage height, 7.15 ft, from rating curve extended above 2,400 ft^3/s; minimum daily, 2.0 ft^3/s, Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 ft^3/s at 1830 June 23, gage height, 6.31 ft; from rating curve extended on basis of slope-area measurement of peak flow; minimum daily, 20 ft^3/s, July 23,25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	38	51	36	29	27	65	170	133	42	47	96
2	58	38	53	37	25	30	60	180	178	44	82	99
3	56	40	53	39	29	29	51	196	134	41	72	92
4	54	36	48	42	30	35	48	210	116	24	96	77
5	53	35	43	49	29	31	67	240	97	22	54	75
6	54	36	32	46	31	31	77	260	91	24	144	58
7	50	36	45	43	29	34	128	240	85	24	75	44
8	57	38	47	41	29	36	131	230	72	25	46	44
9	64	37	40	38	27	40	116	228	65	26	44	43
10	59	36	40	39	31	41	111	226	58	28	43	41
11	52	41	41	39	29	44	117	287	68	31	29	44
12	56	46	42	36	27	41	102	355	45	32	27	49
13	53	44	36	35	36	43	95	406	57	22	47	44
14	53	41	36	33	36	50	92	427	49	23	38	43
15	50	38	39	32	32	62	91	444	50	50	77	86
16	53	36	37	31	33	61	91	434	71	61	56	97
17	47	38	32	30	26	54	103	413	57	42	60	72
18	43	68	32	30	24	62	120	392	55	36	213	52
19	46	51	33	33	26	54	136	375	51	29	296	46
20	43	46	30	35	31	52	228	317	42	27	216	43
21	44	44	28	40	34	52	167	290	33	26	237	41
22	44	38	27	46	32	93	148	269	32	22	326	34
23	44	34	27	52	29	81	165	245	150	20	207	33
24	44	32	28	48	27	71	202	213	93	23	222	34
25	44	44	30	46	30	79	226	197	68	20	247	35
26	43	39	37	45	22	73	218	192	67	44	201	34
27	40	30	33	37	26	92	193	181	72	53	168	30
28	43	36	31	36	27	56	181	160	62	47	149	55
29	42	39	32	41	28	56	209	134	53	68	134	63
30	44	44	36	35	---	82	175	120	49	103	112	57
31	44	---	38	30	---	77	---	111	---	62	102	---
TOTAL	1532	1199	1157	1200	844	1669	3913	8142	2253	1141	3867	1669
MEAN	49.4	40.0	37.3	38.7	29.1	53.8	130	263	75.1	36.8	125	55.6
MAX	64	68	53	52	36	93	228	444	178	103	326	99
MIN	40	30	27	30	22	27	48	111	32	20	27	33
AC-FT	3040	2380	2290	2380	1670	3310	7760	16150	4470	2260	7670	3310

CAL YR 1983 TOTAL 47668 MEAN 131 MAX 464 MIN 13 AC-FT 94550
WTR YR 1984 TOTAL 28586 MEAN 78.1 MAX 444 MIN 20 AC-FT 56700

BEST COPY AVAILABLE

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
05...	1315	51	498	--	16.5	--	--	--	--
13...	0915	56	372	8.0	5.5	10.0	5.6	90	64
NOV									
01...	1235	39	510	--	13.0	--	--	--	--
17...	0915	39	394	8.0	3.0	10.7	<1.8	105	79
DEC									
02...	1015	49	300	--	2.5	--	--	--	--
15...	1000	36	508	7.9	.0	12.0	.9	119	94
JAN									
09...	1220	38	510	--	3.5	--	--	--	--
16...	1450	31	581	8.0	.0	13.4	1.0	125	120
FEB									
09...	1620	32	500	--	4.0	--	--	--	--
16...	1045	23	545	8.0	1.5	11.8	2.2	131	110
MAR									
15...	1330	60	419	--	13.0	9.6	4.1	99	72
16...	1120	60	550	--	9.5	--	--	--	--
APR									
13...	1540	95	380	--	14.0	--	--	--	--
19...	1310	129	245	7.2	7.5	12.6	3.0	59	36
MAY									
09...	1055	226	245	--	12.5	--	--	--	--
11...	1030	302	177	7.4	14.5	10.6	3.3	42	24
JUN									
04...	1355	123	320	--	19.0	--	--	--	--
08...	1030	75	293	8.0	16.0	8.6	2.1	66	50
JUL									
03...	1250	43	460	--	28.5	--	--	--	--
11...	1420	28	410	8.1	18.0	8.7	1.6	93	75
17...	1225	46	520	--	27.0	--	--	--	--
30...	1535	84	195	--	21.0	--	--	--	--
AUG									
03...	1110	67	350	7.4	21.5	9.1	2.0	89	57
28...	1135	155	320	--	23.0	--	--	--	--
SEP									
11...	0930	53	332	8.2	15.0	9.9	--	88	62
25...	1345	40	500	--	17.0	--	--	--	--
28...	1055	60	400	7.7	7.0	8.4	--	95	80

DATE	CHLO-RINE, TOTAL RESI-DUAL (MG/L)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	CYANIDE TOTAL (MG/L AS CN)
OCT									
13...	.03	11	69	1.1	.020	.98	1.0	2.1	<.01
NOV									
17...	<.01	13	78	1.3	.070	.73	.80	2.1	<.01
DEC									
15...	<.01	15	27	1.9	.100	.50	.60	2.5	<.01
JAN									
16...	--	22	24	2.0	<.010	--	.30	2.3	--
FEB									
16...	--	21	239	1.8	.140	.96	1.1	2.9	--
MAR									
15...	--	15	618	1.8	.420	1.1	1.5	3.3	--
APR									
19...	--	8.5	511	.80	.070	1.4	1.5	2.3	--
MAY									
11...	--	5.2	1030	.40	.030	--	<.20	--	--
JUN									
08...	--	8.7	296	.80	.020	2.0	2.0	2.8	--
JUL									
11...	--	10	133	1.0	.100	.60	.70	1.7	--
AUG									
03...	--	15	620	.80	.100	1.4	1.5	2.3	--
SEP									
11...	--	10	--	--	--	--	--	--	--
28...	--	13	253	1.4	.070	1.0	1.1	2.5	--

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07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT										
13...	<1	10	12	1600	40	3	110	40	.2	40
NOV										
17...	<1	<10	8	2800	70	5	140	60	.1	110
DEC										
15...	<1	<10	9	1100	100	4	110	80	<.1	30
JAN										
16...	1	10	4	1100	50	4	100	70	--	30
FEB										
16...	<1	<10	10	6300	40	17	220	80	--	70
MAR										
15...	1	20	15	13000	990	29	320	60	--	90
APR										
19...	<1	<10	15	14000	180	38	370	30	--	80
MAY										
11...	<1	<10	24	29000	140	44	780	30	--	180
JUN										
08...	<1	<10	11	9700	30	9	210	20	--	60
JUL										
11...	<1	<10	9	4400	1000	6	130	40	--	50
AUG										
03...	<1	<10	11	15000	<10	17	350	30	--	110
SEP										
11...	--	<10	--	--	10	--	--	24	--	--
28...	<1	<10	12	8900	120	24	270	50	--	100

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07105530 FOUNTAIN CREEK BELOW JANITELL ROAD BELOW COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'11", long 104°47'43", in NE¼SE¼ sec.29, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, approximately 200 ft downstream from Janitell Road below Colorado Springs.

PERIOD OF RECORD.--April 1975 to June 1976, May 1979 to September 1979, December 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT												
13...	1030	97	618	7.6	10.5	8.8	10	150	39	13	54	2
NOV												
17...	1045	71	648	7.7	9.0	8.3	<17	180	49	15	63	2
DEC												
15...	1115	93	578	7.8	6.0	9.5	14	180	47	14	67	2
JAN												
16...	1530	86	781	7.8	5.0	8.1	15	--	--	--	--	--
FEB												
16...	1130	100	710	7.6	8.0	8.8	E13	--	--	--	--	--
MAR												
15...	1415	64	610	--	13.0	8.0	14	--	--	--	--	--
APR												
19...	1350	201	460	7.6	9.0	10.3	8.0	--	--	--	--	--
MAY												
11...	1210	415	321	7.7	14.0	9.4	9.0	--	--	--	--	--
25...	1620	--	350	7.8	--	--	--	--	--	--	--	--
JUN												
08...	1200	126	570	7.8	17.5	10.6	8.7	--	--	--	--	--
JUL												
11...	1510	69	730	7.6	24.0	6.2	8.1	--	--	--	--	--
AUG												
03...	1215	143	630	7.3	22.0	8.9	1.	--	--	--	--	--
SEP												
11...	1145	90	604	7.9	17.5	8.1	--	160	44	13	55	2
28...	1220	118	670	9.3	10.0	8.6	--	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RINE, TOTAL RESI-DUAL (MG/L)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT											
13...	6.3	128	.02	24	2.5	15	358	350	.48	92	56
NOV											
17...	6.9	151	.02	30	2.4	17	419	410	.56	79	57
DEC											
15...	7.5	153	<.01	32	2.7	16	446	420	.57	105	62
JAN											
16...	--	--	--	--	--	--	--	--	--	--	37
FEB											
16...	--	--	--	--	--	--	--	--	--	--	147
MAR											
15...	--	--	--	--	--	--	--	--	--	--	358
APR											
19...	--	--	--	--	--	--	--	--	--	--	387
MAY											
11...	--	--	--	--	--	--	--	--	--	--	900
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	--	--	--	--	--	--	--	--	--	--	172
JUL											
11...	--	--	--	--	--	--	--	--	--	--	93
AUG											
03...	--	--	--	--	--	--	--	--	--	--	800
SEP											
11...	6.4	129	--	23	2.3	16	--	380	.52	93	--
28...	--	--	--	--	--	--	--	--	--	--	236

E ESTIMATED.

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD BELOW COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT											
13...	--	--	1.3	--	6.50	--	3.5	--	10	--	11
NOV											
17...	--	--	1.7	--	8.00	--	5.0	--	13	--	15
DEC											
15...	--	--	1.3	--	10.0	--	2.0	--	12	--	13
JAN											
16...	--	--	1.4	--	13.0	--	2.0	--	15	--	16
FEB											
16...	--	--	1.4	--	9.80	--	3.2	--	13	--	14
MAR											
15...	--	--	1.6	--	6.50	--	2.0	--	8.5	--	10
APR											
19...	--	--	.80	--	5.10	--	4.9	--	10	--	11
MAY											
11...	--	--	.40	1.0	2.70	--	1.8	--	4.5	--	4.9
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	--	--	.70	--	<.010	--	--	--	8.5	--	9.2
JUL											
11...	--	--	.90	--	8.80	--	-.80	--	8.0	--	8.9
AUG											
03...	--	--	.80	--	6.90	--	5.1	--	12	--	13
SEP											
11...	.89	.110	--	1.0	--	6.40	--	1.6	--	8.0	--
28...	--	--	1.1	--	8.20	--	2.8	--	11	--	12

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT			
13...	--	42	75
NOV			
17...	--	37	93
DEC			
15...	--	47	98
SEP			
11...	<10	12	60

07105780 B DITCH DRAIN NEAR SECURITY, CO

LOCATION.--Lat 38°45'09", long 104°45'43", in SW¼SE¼ sec.10, T. 15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank, on Fort Carson Military Reservation, 800 ft upstream from Interstate 25, 0.7 mi upstream from mouth, and 1.0 mi southwest of Security.

DRAINAGE AREA.--Undetermined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,724 ft, from topographic map.

REMARKS.--Records good except those for winter period and those above 2 ft³/s, which are poor. Unknown amounts of flow are introduced to the stream from activities in the cantonment area of Fort Carson, upstream.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s, Aug. 15, 1981, gage height, 13.78 ft, result of slope-area measurement of peak flow; minimum daily, 0.02 ft³/s, Oct. 4, Dec. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 646 ft³/s at 2030 Aug. 18, gage height, 8.92 ft, from rating curve extended above 1.3 ft³/s, on basis of slope area measurements of peak flow; minimum daily, 0.05 ft³/s, July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.18	.33	.25	.58	.38	.44	.27	.59	.12	.49	.24
2	.11	.18	.35	.24	.54	.37	.27	.55	2.1	.86	.54	.23
3	.11	.19	.28	.48	.52	.34	.28	.23	.25	.11	.25	.21
4	.11	.17	.34	.53	.58	.34	.25	.22	.26	.06	.23	.21
5	.11	.18	.22	.56	.61	.34	.25	.29	.20	.05	.21	.23
6	.12	.18	.16	.56	.57	.34	.24	.22	.19	.10	.23	.23
7	.12	.20	.23	.56	.56	.33	.40	.54	.17	.06	.59	.21
8	.21	.43	.16	.41	.54	.34	.39	.21	.17	.06	.25	.21
9	.13	.16	.16	.22	.54	.31	.24	.23	.17	.07	.25	.21
10	.14	.12	.14	.20	.54	.30	.25	.21	.15	.54	.19	.21
11	.13	.11	.13	.17	.51	.28	.23	.21	.19	.31	.17	.21
12	.25	.12	.16	.14	.53	.29	.21	.19	.17	.15	.17	.23
13	.15	.10	.15	.13	.50	.28	.21	.28	11	.12	.19	.21
14	.15	.11	.13	.12	.47	.25	.21	.19	.28	.12	.28	.23
15	.14	.10	.13	.12	.44	.23	.21	.17	.21	.17	6.5	.64
16	.14	.11	.13	.10	.45	.23	.21	.21	.40	4.9	1.9	.92
17	.14	.12	.12	.10	.46	.21	.21	.19	.17	.92	.85	.44
18	.16	1.2	.12	.08	.47	.24	.21	.15	.15	.21	52	.23
19	.16	.14	.11	.07	.46	.21	.23	.28	.17	.25	8.2	.19
20	.14	.10	.10	.09	.44	.21	.73	.19	.15	.21	3.4	.17
21	.15	.11	.10	.14	.43	.21	1.5	.13	.12	.17	2.6	.17
22	.15	.08	.09	.16	.43	.30	.41	.15	.11	.15	6.9	.15
23	.20	.10	.10	.22	.41	.26	.26	.13	.10	.15	.34	.12
24	.14	.13	.08	.22	.40	.24	.23	.13	.11	.17	1.2	.11
25	.13	.09	.10	.25	.39	.23	.22	.12	.12	.15	.74	.09
26	.14	.10	.20	.25	.35	.24	.21	.13	.12	1.4	.34	.09
27	.17	.10	.14	.25	.37	.36	.21	.13	.11	.34	.31	.12
28	.16	.10	.12	.23	.37	.23	.25	.12	.10	3.2	.28	.26
29	.15	.09	.14	.31	.37	.23	.34	.12	.09	.28	.31	.20
30	.17	.09	.20	.45	---	.36	.21	.13	.12	1.4	.25	.14
31	.18	---	.25	.50	---	.41	---	.15	---	1.1	.25	---
TOTAL	4.58	5.19	5.17	8.11	13.83	8.89	9.51	6.47	18.24	17.90	90.41	7.11
MEAN	.15	.17	.17	.26	.48	.29	.32	.21	.61	.58	2.92	.24
MAX	.25	1.2	.35	.56	.61	.41	1.5	.55	11	4.9	52	.92
MIN	.11	.08	.08	.07	.35	.21	.21	.12	.09	.05	.17	.09
AC-FT	9.1	10	10	16	27	18	19	13	36	36	179	14

CAL YR 1983 TOTAL 351.31 MEAN .96 MAX 139 MIN .08 AC-FT 697
WTR YR 1984 TOTAL 195.41 MEAN .53 MAX 52 MIN .05 AC-FT 388

07105780 B DITCH DRAIN NEAR SECURITY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT										
06...	1310	.13	8000	-	19.5	--	--	--	--	--
13...	1245	.19	4690	8.1	14.5	10.0	3.1	1200	200	180
NOV										
02...	0950	.19	7500	--	9.0	--	--	--	--	--
17...	1245	.12	5050	8.2	8.0	11.2	<2.0	--	--	--
DEC										
02...	1125	.41	3700	--	1.0	--	--	--	--	--
15...	1315	--	4310	8.1	.0	12.9	1.9	--	--	--
JAN										
06...	1300	.57	2700	--	1.0	--	--	--	--	--
16...	1645	.10	4200	8.0	.0	10.4	2.4	--	--	--
FEB										
09...	1435	.52	2900	--	4.0	--	--	--	--	--
16...	1230	.40	2900	8.2	4.0	11.2	E1.6	--	--	--
MAR										
15...	1510	.23	4000	--	13.0	9.0	1.7	--	--	--
19...	1105	.20	3700	--	11.5	--	--	--	--	--
APR										
11...	1450	.22	5000	--	16.0	--	--	--	--	--
19...	1450	.17	5800	8.1	6.5	13.0	11	--	--	--
MAY										
09...	1215	.27	4250	--	21.0	--	--	--	--	--
11...	1300	.21	5000	8.3	23.0	11.8	3.6	--	--	--
JUN										
04...	1020	.27	3800	--	19.5	--	--	--	--	--
08...	1245	.17	5850	8.2	24.5	13.1	2.1	--	--	--
JUL										
05...	1135	.06	3500	--	24.5	--	--	--	--	--
11...	1700	.13	3790	8.0	24.0	4.0	1.7	--	--	--
30...	1130	.14	2900	--	24.5	--	--	--	--	--
AUG										
03...	1315	.28	4150	7.6	27.0	4.2	.8	--	--	--
29...	1030	.38	3800	--	23.0	--	--	--	--	--
SEP										
24...	1112	.12	--	--	18.0	--	--	--	--	--
28...	1325	.23	5790	8.0	9.0	7.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
13...	780	10	7.8	340	2400	69	1.1	6.5	4020	3800
NOV										
17...	--	--	--	--	--	--	--	--	4880	--
DEC										
15...	--	--	--	--	--	--	--	--	3930	--

E ESTIMATED.

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ARKANSAS RIVER BASIN

07105780 B DITCH DRAIN NEAR SECURITY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT									
13...	5.2	29	13	.070	2.6	2.7	16	80	40
NOV									
17...	--	67	22	.110	1.8	1.9	24	--	--
DEC									
15...	--	43	18	.440	1.9	2.3	20	--	--
JAN									
16...	--	221	19	.520	1.1	1.6	21	--	--
FEB									
16...	--	98	12	.150	1.6	1.7	14	--	--
MAR									
15...	--	34	14	.040	1.3	1.3	15	--	--
APR									
19...	--	14	19	.230	1.3	1.5	21	--	--
MAY									
11...	--	10	15	.050	1.8	1.8	17	--	--
JUN									
08...	--	35	15	.040	1.7	1.7	17	--	--
JUL									
11...	--	76	.40	.100	1.2	1.3	1.7	--	--
AUG									
03...	--	46	12	.120	.88	1.0	13	--	--
SEP									
28...	--	26	30	.110	.69	.80	31	--	--

07105800 FOUNTAIN CREEK AT SECURITY, CO

LOCATION.--Lat 38°43'46", long 104°44'00", in SW¼ sec.24, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank on upstream side of Carson Road bridge, 0.9 mi southwest of South Security School, 3.5 mi northeast of Fountain, and 5.5 mi upstream from Jimmy Camp Creek.

DRAINAGE AREA.--495 mi^2.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,640 ft, from topographic map. Prior to Oct. 26, 1966, at site 1,040 ft upstream at datum 6.00 ft, higher. Oct. 26, 1966, to July 18, 1972, at site 980 ft upstream at datum 6.00 ft, higher, July 19, 1972, to Feb. 20 1980, at site 980 ft downstream at datum 6.00 ft, lower.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 5,100 acres and municipal use, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years, 74.0 ft^3/s; 53,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s, July 24, 1965, gage height, 11.30 ft, site and datum then in use, from floodmarks, from rating curve extended above 2,900 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 1.9 ft^3/s, Mar. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,360 ft^3/s at 2145 Aug. 18, gage height, 4.05 ft, from rating curve based on slope-area measurement of peak flow; minimum daily, 53 ft^3/s, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	62	71	92	82	82	130	216	141	82	98	142
2	89	65	80	87	80	71	118	223	195	81	145	144
3	87	58	74	85	82	72	118	239	180	84	101	143
4	82	60	74	97	87	81	115	250	192	65	150	132
5	82	60	71	99	87	75	127	270	152	69	85	132
6	82	60	63	92	89	72	124	287	133	60	269	110
7	82	62	76	85	80	74	156	300	124	54	159	99
8	87	63	80	82	82	78	194	270	124	71	97	100
9	110	63	78	78	76	83	142	270	121	74	169	96
10	115	62	80	76	76	88	142	275	118	87	92	94
11	102	65	80	76	85	85	145	332	139	77	61	94
12	102	67	82	78	78	91	142	368	110	79	53	95
13	102	67	78	78	89	97	150	432	149	63	71	88
14	102	63	78	71	87	107	166	380	123	67	59	86
15	99	63	85	62	78	120	170	455	115	93	107	110
16	94	56	87	62	80	117	180	520	130	140	140	116
17	87	60	80	62	80	110	192	490	130	127	104	105
18	89	133	80	60	69	121	216	443	121	67	642	84
19	87	114	76	60	69	110	255	429	121	69	457	75
20	89	82	74	66	78	102	318	362	103	68	310	72
21	82	78	70	79	78	97	232	315	89	74	233	68
22	80	69	68	94	76	166	204	300	89	64	550	61
23	76	71	66	110	76	152	225	285	183	70	216	60
24	76	69	66	99	71	124	255	235	120	66	201	70
25	78	76	71	89	78	124	275	208	102	69	378	80
26	63	71	76	94	76	127	255	204	83	98	248	71
27	63	63	80	87	71	147	250	192	87	95	215	84
28	67	76	78	87	69	107	250	184	79	108	210	99
29	74	67	80	97	78	94	285	177	72	151	196	107
30	69	67	80	92	---	151	230	163	77	177	173	104
31	67	---	87	92	---	133	---	145	---	134	158	---
TOTAL	2642	2092	2369	2568	2287	3258	5761	9219	3702	2683	6147	2921
MEAN	85.2	69.7	76.4	82.8	78.9	105	192	297	123	86.5	198	97.4
MAX	115	133	87	110	89	166	318	520	195	177	642	144
MIN	63	56	63	60	69	71	115	145	72	54	53	60
AC-FT	5240	4150	4700	5090	4540	6460	11430	18290	7340	5320	12190	5790

CAL YR 1983 TOTAL 70922 MEAN 194 MAX 806 MIN 56 AC-FT 140700
WTR YR 1984 TOTAL 45649 MEAN 125 MAX 642 MIN 53 AC-FT 90540

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO

LOCATION.--Lat 38°43'07", long 104°43'43", in SW¼NE¼ sec.25, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft downstream from Fort Carson Military Road No. 1, 500 ft upstream from bridge on Interstate 25, 0.2 mi upstream from mouth, and 1.2 mi south of Widefield.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,620 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, and those above 50 ft^3/s, which are poor. This station is operated primarily to monitor low flows downstream from Fort Carson sewage-treatment plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft^3/s, July 28, 1982, gage height, 9.64 ft, from rating curve extended above 50 ft^3/s; no flow Oct. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,840 ft^3/s at 1315 Aug. 21, gage height, 9.32 ft, from rating curve extended above 50 ft^3/s; minimum daily, 1.7 ft^3/s, Feb. 18, 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	2.6	4.4	3.5	3.6	2.0	5.7	5.7	8.4	7.0	12	4.1
2	3.9	3.1	4.0	3.4	3.3	1.9	3.9	5.1	13	10	10	3.9
3	3.0	3.7	3.9	3.3	3.3	1.8	4.1	4.6	5.6	4.9	9.8	4.2
4	4.0	3.8	3.8	3.2	3.1	1.9	4.3	5.6	4.7	4.0	10	4.8
5	4.9	4.4	3.8	3.3	3.2	2.0	4.2	6.0	2.8	4.9	9.3	4.5
6	4.4	4.3	3.9	3.4	3.4	2.1	3.9	5.4	3.5	4.5	8.0	4.1
7	4.0	4.1	4.0	3.2	3.3	2.1	5.1	10	3.6	3.9	8.6	3.4
8	5.1	4.8	4.1	3.1	3.3	2.0	4.2	5.6	3.8	4.9	8.3	3.6
9	3.5	4.0	4.3	3.0	4.2	2.0	4.1	5.6	4.0	5.9	8.3	4.3
10	3.7	4.0	4.5	3.0	4.6	1.9	4.6	5.4	4.5	5.9	8.3	4.1
11	3.2	4.1	4.3	3.4	4.0	2.0	3.7	5.6	5.1	7.5	8.0	3.3
12	4.1	4.2	4.3	3.8	3.6	2.1	4.4	5.1	5.4	6.7	8.0	3.1
13	3.7	4.2	4.3	3.9	3.5	2.1	4.2	6.3	9.0	6.4	7.6	3.7
14	3.7	4.2	4.1	3.6	3.5	2.1	3.6	5.4	6.9	6.2	7.1	4.5
15	3.5	4.2	4.1	3.5	2.8	3.1	4.0	5.6	5.4	6.8	11	4.5
16	2.9	4.1	4.0	3.8	2.5	3.3	4.5	5.4	7.2	9.5	14	7.6
17	2.5	4.5	3.8	3.3	2.4	3.4	4.7	5.6	6.7	7.7	12	5.4
18	2.8	7.1	3.8	3.7	1.7	4.7	5.0	4.5	7.5	7.4	21	4.7
19	3.1	3.3	3.7	3.3	1.9	4.1	4.7	3.3	6.0	7.8	13	3.9
20	3.6	3.4	3.7	3.3	2.1	3.9	12	2.7	5.7	7.4	6.6	4.3
21	3.6	3.1	3.8	3.5	2.3	4.0	12	3.7	6.2	7.2	125	4.7
22	3.5	2.6	3.7	3.9	2.2	7.4	5.4	4.3	7.0	6.8	20	4.5
23	2.8	3.6	3.8	4.0	2.3	6.1	4.0	4.3	7.1	6.8	8.8	4.1
24	3.0	3.6	3.8	4.4	2.2	4.4	4.6	5.6	6.6	7.0	8.0	3.9
25	3.8	3.6	3.8	4.6	1.8	4.3	5.8	5.4	5.8	7.0	7.1	4.5
26	3.8	3.3	3.7	4.1	1.7	5.3	4.9	5.4	5.9	8.7	5.1	4.3
27	3.8	3.6	3.6	4.0	1.7	8.0	4.8	4.7	7.2	7.5	5.4	3.4
28	4.0	3.8	3.5	3.7	1.7	4.0	4.7	4.9	6.5	9.3	4.9	3.4
29	3.5	4.0	3.5	4.2	2.0	3.5	6.9	4.7	5.8	8.0	4.7	3.9
30	3.7	3.9	3.5	3.8	---	7.9	5.1	3.9	6.2	8.8	4.8	3.9
31	3.2	---	3.5	3.3	---	6.6	---	5.6	---	8.3	4.9	---
TOTAL	113.0	117.2	121.0	111.5	81.2	112.0	153.1	161.0	183.1	214.7	399.6	126.6
MEAN	3.65	3.91	3.90	3.60	2.80	3.61	5.10	5.19	6.10	6.93	12.9	4.22
MAX	5.1	7.1	4.5	4.6	4.6	8.0	12	10	13	10	125	7.6
MIN	2.5	2.6	3.5	3.0	1.7	1.8	3.6	2.7	2.8	3.9	4.7	3.1
AC-FT	224	232	240	221	161	222	304	319	363	426	793	251

CAL YR 1983 TOTAL 1845.4 MEAN 5.06 MAX 153 MIN 2.4 AC-FT 3660
WTR YR 1984 TOTAL 1894.0 MEAN 5.17 MAX 125 MIN 1.7 AC-FT 3760

NOTE.--NO GAGE-HEIGHT RECORD DEC. 2 TO JAN. 9.

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT										
05...	1135	4.7	1600	--	16.5	--	--	--	--	--
13...	1320	3.5	1510	8.0	15.5	8.2	13	420	100	41
NOV										
02...	1140	2.9	1750	--	14.0	--	--	--	--	--
17...	1330	4.5	1560	8.2	12.0	9.5	E24	--	--	--
DEC										
02...	1255	4.0	1280	--	9.5	--	--	--	--	--
15...	1400	4.1	1360	8.2	6.5	10.9	28	--	--	--
JAN										
09...	1525	3.0	1400	--	6.0	--	--	--	--	--
17...	0820	2.9	--	7.9	3.0	10.6	26	--	--	--
FEB										
09...	1045	4.5	1100	--	9.5	--	--	--	--	--
16...	1310	2.5	1460	8.2	8.5	11.6	21	--	--	--
MAR										
13...	1240	2.2	1100	--	14.5	--	--	--	--	--
15...	1545	3.3	1380	--	14.0	9.7	>26	--	--	--
APR										
11...	1340	3.7	1400	--	17.0	--	--	--	--	--
19...	1515	2.7	1500	8.5	16.0	10.4	14	--	--	--
MAY										
11...	1345	6.6	1460	8.3	21.5	10.4	24	--	--	--
JUN										
05...	1505	2.9	1500	--	19.0	--	--	--	--	--
08...	1325	3.8	1380	8.3	21.5	11.0	9.3	--	--	--
JUL										
05...	1140	4.7	1300	--	24.0	--	--	--	--	--
11...	1730	7.5	1030	7.8	22.0	6.6	13	--	--	--
AUG										
01...	1200	7.9	1050	--	23.0	--	--	--	--	--
03...	1345	9.8	1420	8.1	25.5	6.2	6.9	--	--	--
29...	1145	4.8	1350	--	23.5	--	--	--	--	--
SEP										
26...	1310	4.3	1300	--	15.0	--	--	--	--	--
28...	1405	4.9	1450	7.7	12.0	10.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)
OCT									
13...	170	4	7.2	231	480	49	1.3	16	1050
NOV									
17...	--	--	--	--	--	--	--	--	1180
DEC									
15...	--	--	--	--	--	--	--	--	924

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07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
OCT									
13...	1000	1.4	9.5	17	5.1	4.80	3.2	8.0	13
NOV									
17...	--	--	--	29	4.7	8.00	4.0	12	17
DEC									
15...	--	--	--	33	3.8	7.00	3.0	10	14
JAN									
17...	--	--	--	51	3.2	9.40	2.6	12	15
FEB									
16...	--	--	--	12	3.6	8.90	3.1	12	16
MAR									
15...	--	--	--	54	<1.7	12.0	5.0	17	--
APR									
19...	--	--	--	14	5.1	6.70	4.3	11	16
MAY									
11...	--	--	--	17	6.7	6.10	3.4	9.5	16
JUN									
08...	--	--	--	23	11	1.70	4.3	6.0	17
JUL									
11...	--	--	--	22	4.4	4.00	3.0	7.0	11
AUG									
03...	--	--	--	33	5.0	7.00	2.0	9.0	14
SEP									
28...	--	--	--	1	4.9	5.30	1.2	6.5	11

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT		
13...	22	56

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO

LOCATION.--Lat 38°41'04", long 104°41'17", in NW¼SE¼ sec.5, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of bridge on county road, 1,000 ft east of Fountain, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--65.6 mi².

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,530 ft, from topographic map.

REMARKS.--Records good except those for winter period, and those above 5 ft³/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 2.42 ft³/s; 1,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft³/s, Aug. 20, 1982, from rating curve extended above 2,000 ft³/s, gage height, 4.61 ft, from floodmark; minimum daily, 0.20 ft³/s, July 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 590 ft³/s at 0345 Aug. 2, gage height, 3.84 ft; minimum daily, 0.80 ft³/s, June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	1.5	1.2	1.7	1.3	2.6	1.0	1.5	.99	17	2.4
2	1.5	1.5	1.5	1.3	1.3	1.3	1.7	1.1	2.5	1.7	120	2.6
3	1.3	1.5	1.6	1.3	1.7	1.3	4.2	1.1	1.9	1.1	20	2.5
4	1.2	1.5	1.5	1.3	1.4	1.3	2.9	1.1	2.2	1.0	5.6	2.3
5	1.4	1.5	1.5	1.3	1.4	1.3	2.1	1.1	1.5	.97	2.4	2.4
6	2.0	1.5	1.6	1.3	1.5	1.3	2.1	1.1	1.4	1.1	1.9	2.5
7	3.3	1.5	1.5	1.3	1.4	1.3	2.4	1.3	1.3	1.5	1.7	2.8
8	3.9	1.5	1.5	1.3	1.4	1.4	2.8	1.2	1.2	1.7	1.5	4.5
9	3.3	1.5	1.5	1.3	1.5	1.3	2.6	1.3	1.2	2.4	1.5	5.5
10	2.8	1.7	1.5	1.3	1.6	1.4	1.9	1.0	1.3	3.6	1.3	5.9
11	2.0	1.7	1.5	1.2	1.3	1.5	1.4	.99	1.2	5.6	1.4	3.1
12	2.8	1.7	1.5	1.1	1.2	1.6	1.4	7.0	1.3	2.2	1.7	1.8
13	1.7	1.7	1.4	1.0	1.1	1.5	1.3	1.1	1.1	1.3	1.7	1.7
14	1.5	1.7	1.3	.94	1.1	1.5	1.3	1.2	1.0	1.1	1.5	1.7
15	1.5	1.5	1.3	.88	1.3	1.5	1.3	1.1	1.0	1.1	1.4	1.7
16	1.5	1.5	1.3	.88	1.5	1.5	1.4	1.1	1.0	1.0	1.5	1.7
17	1.5	1.5	1.3	.88	1.5	1.4	1.3	1.1	1.0	1.0	1.7	1.6
18	1.5	1.6	1.2	.84	1.3	1.4	1.3	1.1	1.0	1.0	2.0	1.6
19	1.5	1.7	1.1	.84	1.3	1.5	1.3	1.1	1.0	1.0	5.2	1.6
20	1.5	1.7	1.1	.84	1.7	1.7	1.4	1.1	1.0	.90	17	1.6
21	1.5	1.7	1.1	.86	1.9	1.5	1.3	1.2	1.0	1.1	102	1.7
22	1.5	1.7	1.0	.88	1.5	1.3	1.3	1.1	.99	1.3	52	1.7
23	1.5	1.7	1.0	.88	1.4	1.3	1.1	1.1	.99	1.4	20	1.8
24	1.4	1.7	.98	.88	1.4	3.6	1.1	1.1	1.0	1.4	9.8	1.8
25	1.4	1.7	.98	1.3	1.4	2.3	1.1	1.1	.86	1.7	4.8	1.8
26	1.5	1.6	1.0	.88	1.2	2.6	1.0	1.1	.85	2.0	3.4	2.2
27	1.5	1.5	1.0	1.0	1.2	2.6	1.0	1.1	1.5	2.4	3.3	3.4
28	1.4	1.4	1.0	1.1	1.2	4.1	.99	1.1	.80	3.1	3.6	3.1
29	1.5	1.4	.99	1.2	1.5	2.0	1.0	1.1	1.4	3.9	3.1	2.8
30	1.5	1.4	1.0	1.3	---	1.7	1.1	1.2	1.5	1.4	2.6	2.8
31	1.5	---	1.1	1.3	---	2.0	---	1.3	---	2.0	2.5	---
TOTAL	55.7	47.3	39.35	33.88	40.9	53.3	49.69	40.69	37.49	53.96	415.1	74.6
MEAN	1.80	1.58	1.27	1.09	1.41	1.72	1.66	1.31	1.25	1.74	13.4	2.49
MAX	3.9	1.7	1.6	1.3	1.9	4.1	4.2	7.0	2.5	5.6	120	5.9
MIN	1.2	1.4	.98	.84	1.1	1.3	.99	.99	.80	.90	1.3	1.6
AC-FT	110	94	78	67	81	106	99	81	74	107	823	148

CAL YR 1983 TOTAL 607.69 MEAN 1.66 MAX 5.6 MIN .27 AC-FT 1210
WTR YR 1984 TOTAL 941.96 MEAN 2.57 MAX 120 MIN .80 AC-FT 1870

BES Y AVAILABLE

07105905 FOUNTAIN CREEK ABOVE LITTLE FOUNTAIN CREEK BELOW FOUNTAIN, CO

LOCATION.--Lat 38°37'50", long 104°40'50", in SW¼NW¼ sec.28, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, approximately 1 mi upstream from mouth of Little Fountain Creek below Fountain.

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT									
12...	1330	60	--	7.8	15.5	7.8	6.6	--	--
NOV									
16...	1430	58	1150	8.1	11.0	8.7	13	--	--
DEC									
14...	1350	85	1120	8.0	4.5	10.5	19	--	--
JAN									
17...	0920	73	--	8.1	.0	10.3	22	--	--
FEB									
16...	1345	81	970	7.9	9.0	8.7	>25	--	--
MAR									
15...	1620	140	790	--	13.0	7.4	>26	--	--
APR									
19...	1605	227	570	7.7	13.5	9.2	15	--	--
MAY									
11...	1525	396	420	7.4	19.0	6.7	6.4	--	--
JUN									
08...	1445	56	890	7.7	21.5	9.1	6.9	--	--
JUL									
11...	1820	47	1080	8.0	24.0	7.4	7.8	--	--
AUG									
03...	1445	88	830	7.5	17.5	8.6	6.6	--	--
SEP									
11...	1620	73	940	8.1	20.5	6.7	--	270	68
28...	1520	60	1100	7.9	10.0	10.9	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	ALKA-LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT								
12...	--	--	69	4.9	.500	1.2	1.7	6.6
NOV								
16...	--	--	44	--	--	--	--	--
DEC								
14...	--	--	103	3.7	3.90	2.1	6.0	9.7
JAN								
17...	--	--	76	2.9	7.50	1.0	8.5	11
FEB								
16...	--	--	194	2.9	5.90	1.6	7.5	10
MAR								
15...	--	--	719	3.8	3.20	1.7	4.9	8.7
APR								
19...	--	--	748	3.2	.980	.32	1.3	4.5
MAY								
11...	--	--	980	2.6	.280	.32	.60	3.2
JUN								
08...	--	--	139	4.0	.060	1.4	1.5	5.5
JUL								
11...	--	--	632	3.7	.080	3.4	3.5	7.2
AUG								
03...	--	--	546	2.9	.070	1.9	2.0	4.9
SEP								
11...	23	144	--	--	--	--	--	--
28...	--	--	95	4.6	1.10	1.0	2.1	6.7

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT				
12...	--	--	--	.1
NOV				
16...	--	--	--	.1
DEC				
14...	--	--	--	.1
SEP				
11...	<10	<3	24	--

07105905 FOUNTAIN CREEK ABOVE LITTLE FOUNTAIN CREEK BELOW FOUNTAIN, CO--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
SEP	
11...	5.9

07105920 LITTLE FOUNTAIN CREEK ABOVE KEATON RESERVOIR NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'54", long 104°51'29", in NE¼SW¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 100 ft above Keaton Reservoir, 0.7 mi upstream from State Highway 115, and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--May 1978 to current year. Water-quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,430 ft, from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. No diversions above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 5.32 ft³/s; 3,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 513 ft³/s, June 3, 1981, gage height, 3.72 ft, from floodmark, from rating curve extended above 70 ft³/s, on basis of slope-area measurement of peak flow; no flow, Aug. 22-23, Sept. 8-24, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 26	0030	11	0.93	Aug. 20	2045	34	1.59
May 2	2015	10	0.92	Aug. 25	1030	*46	1.75
May 13	1515	25	1.43				

Minimum daily discharge, 0.52 ft³/s, July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	.96	1.1	1.1	.73	1.4	7.5	4.0	1.1	2.1	15
2	1.6	1.2	.96	1.0	1.0	.73	1.6	7.8	6.0	1.0	2.7	13
3	1.5	1.2	.96	1.0	.84	.73	1.7	8.0	5.4	1.0	2.6	12
4	1.6	1.2	.96	.96	.85	.73	1.8	8.6	4.7	1.4	2.8	11
5	1.6	1.4	.96	.90	.86	.73	1.9	8.9	4.3	1.4	2.5	8.9
6	1.4	1.4	.96	.92	.87	.87	2.4	9.3	4.0	1.2	2.2	8.0
7	1.4	1.4	.96	.98	.87	.80	3.0	9.7	3.5	1.2	2.1	7.0
8	1.4	1.6	.96	1.0	.78	.80	3.6	9.1	3.0	1.2	1.9	6.5
9	1.4	1.2	1.0	.92	.78	.86	4.0	9.5	3.4	1.2	2.1	5.8
10	1.2	1.1	1.0	.88	1.1	1.0	5.2	11	3.6	1.2	2.8	5.3
11	1.2	1.0	1.0	.88	.79	1.2	5.5	13	3.2	2.2	2.2	4.9
12	1.4	.90	1.1	.82	1.0	1.3	5.1	16	2.7	1.9	2.1	4.4
13	1.4	.90	1.0	.82	1.1	1.5	4.9	18	2.4	1.4	2.1	4.3
14	1.4	.90	1.0	.80	1.2	1.2	4.7	16	4.0	1.4	2.6	5.5
15	1.4	.90	1.0	.78	.96	1.1	4.3	15	3.0	1.5	3.7	4.2
16	1.4	.90	1.0	.82	.96	1.0	4.3	14	3.3	1.4	3.2	5.2
17	1.4	.90	1.0	.76	.83	1.0	4.6	13	4.0	1.3	3.3	5.3
18	1.4	1.6	1.0	.74	.80	1.0	4.8	11	3.4	1.2	4.2	4.3
19	1.2	1.2	.96	.76	1.0	.97	4.7	9.5	3.0	1.1	11	3.8
20	1.2	.90	.88	.78	.87	.94	4.8	8.0	3.4	1.2	17	3.4
21	1.2	.87	.80	.80	.73	.99	4.6	7.0	3.0	1.1	16	3.4
22	1.2	.87	.70	.82	.80	.92	4.9	6.5	2.5	.52	23	3.2
23	1.2	.87	.72	.84	.87	.85	5.2	6.0	2.0	.66	25	2.9
24	1.2	.98	.74	.84	.80	1.2	7.2	5.5	1.7	.63	18	2.6
25	1.2	1.1	.80	.84	.80	1.1	10	5.0	1.5	.64	44	2.5
26	1.2	.87	.85	.80	.87	1.3	11	4.8	1.0	.70	39	2.8
27	1.2	.87	.90	.79	.80	1.1	9.7	4.6	1.1	.96	33	2.9
28	1.2	.87	.95	.76	.66	1.5	8.7	4.5	1.2	.80	30	2.8
29	1.2	.96	1.0	.78	.73	1.2	8.0	4.2	1.2	1.6	20	2.6
30	1.2	.96	1.1	.84	---	.98	7.4	4.1	1.1	1.1	18	2.6
31	1.2	---	1.1	1.0	---	1.1	---	4.0	---	1.6	16	---
TOTAL	41.3	32.22	29.28	26.73	25.62	31.43	151.0	279.1	90.6	36.81	357.2	166.1
MEAN	1.33	1.07	.94	.86	.88	1.01	5.03	9.00	3.02	1.19	11.5	5.54
MAX	1.6	1.6	1.1	1.1	1.2	1.5	11	18	6.0	2.2	44	15
MIN	1.2	.87	.70	.74	.66	.73	1.4	4.0	1.0	.52	1.9	2.5
AC-FT	82	64	58	53	51	62	300	554	180	73	709	329

CAL YR 1983 TOTAL 2129.70 MEAN 5.83 MAX 30 MIN .70 AC-FT 4220
WTR YR 1984 TOTAL 1267.39 MEAN 3.46 MAX 44 MIN .52 AC-FT 2510

NOTE.--NO GAGE-HEIGHT RECORD DEC. 19 TO FEB. 5, MAY 14 TO JULY 2.

BEST COPY AVAILABLE

07105924 WOMACK DITCH NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'52", long 104°51'20", in NW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left side of diversion pipe, 300 ft downstream from Keaton Reservoir, 0.5 mi upstream from State Highway 115, and 4.7 mi southwest of Fort Carson.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,400 ft, from topographic map.

REMARKS.--Records good except for those periods during April and May when possible backwater occurred, which are fair. Gage is on controlled pipe diversion from Keaton Reservoir, which delivers appropriated water rights to Fort Carson and the City of Fountain. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1.21 ft³/s; 877 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4.8 ft³/s, June 3, 4, 9-15, 1979; no flow, Mar. 21-24, Sept. 7, 8, 1980, Dec. 18-31, 1981, Jan. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.4 ft³/s, June 8; minimum daily discharge, 0.08 ft³/s, Dec. 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	1.2	1.2	.10	.54	.71	1.2	2.3	2.3	1.7	1.2	1.1
2	.32	1.2	1.2	.10	.54	.71	1.2	2.3	2.3	1.6	1.2	1.1
3	.32	1.2	1.2	.10	.54	.71	1.2	2.2	2.3	1.6	1.2	1.1
4	.32	1.2	1.2	.10	.54	.71	1.2	2.3	2.3	1.6	1.2	1.1
5	.32	1.2	1.2	.10	.58	.71	1.2	2.2	2.3	1.6	1.2	1.1
6	.32	1.2	1.2	.10	.80	.71	1.2	2.1	2.3	1.6	1.2	1.1
7	.32	1.2	1.2	.12	.80	.71	1.2	2.0	2.3	1.4	1.1	1.1
8	.32	1.2	1.2	.10	.80	.71	1.2	2.1	2.4	1.2	1.1	1.1
9	.32	1.2	1.2	.10	.75	.71	1.4	2.3	1.7	1.2	1.1	1.1
10	.32	1.2	1.2	.10	.75	.71	1.7	2.3	1.6	1.2	1.1	1.1
11	.34	1.2	1.2	.10	.75	.75	1.7	2.2	1.7	1.2	1.1	1.1
12	.34	1.2	1.2	.14	.75	.80	1.7	2.2	1.7	1.2	1.1	1.1
13	.34	1.2	1.2	.19	.75	.80	1.7	2.1	1.7	1.2	1.1	1.1
14	.90	1.2	1.2	.24	.75	.80	1.7	2.1	1.7	1.2	1.1	1.1
15	1.3	1.2	1.2	.24	.85	.80	1.7	2.1	1.7	1.2	1.1	1.1
16	1.3	1.2	1.1	.24	.99	.80	1.7	2.1	1.7	1.2	1.1	1.1
17	1.3	1.2	1.1	.24	.99	.80	2.3	2.1	1.7	1.2	1.1	1.1
18	1.3	1.2	1.1	.24	.99	.99	2.3	2.1	1.7	1.2	1.1	1.1
19	1.3	1.2	1.1	.24	.75	.99	2.3	2.2	1.7	1.2	1.1	1.1
20	1.3	1.2	1.0	.24	.48	.99	2.2	2.3	1.7	1.2	1.1	1.1
21	1.3	1.2	.35	.24	.51	.99	2.1	2.3	1.7	1.2	1.1	1.1
22	1.3	1.2	.10	.24	.54	.99	2.1	2.2	1.7	1.2	1.1	1.1
23	1.3	1.2	.08	.24	.63	.99	2.3	2.3	1.7	1.1	1.1	1.1
24	1.3	1.2	.08	.24	.67	.99	2.3	2.3	1.7	1.1	1.1	1.1
25	1.3	1.2	.08	.28	.75	.99	2.3	2.3	1.7	1.1	1.1	1.1
26	1.3	1.2	.10	.37	.75	1.1	2.2	2.3	1.7	1.1	1.1	1.1
27	1.3	1.2	.10	.40	.75	1.2	2.1	2.2	1.7	1.2	1.1	1.1
28	1.2	1.2	.10	.44	.71	1.2	2.2	2.2	1.7	1.2	1.1	1.1
29	1.2	1.2	.10	.48	.71	1.2	2.2	2.3	1.7	1.2	1.1	1.1
30	1.2	1.2	.10	.54	---	1.2	2.3	2.3	1.7	1.2	1.1	1.1
31	1.2	---	.10	.54	---	1.2	---	2.3	---	1.2	1.1	---
TOTAL	26.82	36.0	24.69	7.14	20.71	27.67	54.1	68.6	55.8	39.5	34.7	33.0
MEAN	.87	1.20	.80	.23	.71	.89	1.80	2.21	1.86	1.27	1.12	1.10
MAX	1.3	1.2	1.2	.54	.99	1.2	2.3	2.3	2.4	1.7	1.2	1.1
MIN	.32	1.2	.08	.10	.48	.71	1.2	2.0	1.6	1.1	1.1	1.1
AC-FT	53	71	49	14	41	55	107	136	111	78	69	65

CAL YR 1983 TOTAL 270.75 MEAN .74 MAX 2.1 MIN .08 AC-FT 537
WTR YR 1984 TOTAL 428.73 MEAN 1.17 MAX 2.4 MIN .08 AC-FT 850

07105928 LITTLE FOUNTAIN CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'49", long 104°51'08", in SW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.3 mi downstream from Keaton Reservoir, 0.4 mi upstream from State Highway 115, 1.2 mi upstream from Deadman Canyon and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.8 km².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 6,360 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Womack Ditch diverts about 5 ft³/s from Keaton Reservoir upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 4.23 ft³/s; 3,060 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 157 ft³/s, May 8, 1980, gage height, 4.46 ft, from rating curve extended above 70 ft³/s ; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55 ft³/s at 0015 Aug. 26, gage height, 3.40 ft; no flow, Oct. 31-Jan. 5, July 17-Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.00	.00	.00	.18	.22	.36	7.2	2.0	.05	.00	9.6
2	.95	.00	.00	.00	.14	.20	.33	7.7	2.8	.00	.00	7.0
3	1.0	.00	.00	.00	.10	.18	.33	8.0	2.3	.00	.00	6.5
4	.94	.00	.00	.00	.08	.18	.33	8.3	2.2	.00	.49	5.2
5	.94	.00	.00	.00	.10	.18	.66	9.0	1.7	.00	.81	4.4
6	.85	.00	.00	.02	.12	.20	1.4	9.2	1.4	.00	.67	3.8
7	.77	.00	.00	.08	.10	.21	2.0	9.8	1.1	.00	.64	3.2
8	.77	.00	.00	.12	.08	.23	2.5	9.1	.80	.00	.40	3.0
9	.78	.00	.00	.14	.10	.25	2.9	9.3	1.1	.00	.25	2.9
10	.66	.00	.00	.14	.14	.30	3.0	11	1.2	.00	.69	2.7
11	.63	.00	.00	.10	.12	.36	3.6	14	.97	.06	.67	2.7
12	.77	.00	.00	.06	.12	.50	3.2	16	.97	.25	.46	2.6
13	.70	.00	.00	.04	.20	.75	3.3	19	.51	.03	.50	2.4
14	.60	.00	.00	.04	.16	.70	2.9	18	1.5	.01	.67	2.4
15	.17	.00	.00	.03	.14	.65	3.2	17	.73	.01	1.7	2.3
16	.11	.00	.00	.02	.14	.61	2.6	16	.88	.03	1.3	2.7
17	.08	.00	.00	.02	.14	.58	2.8	13	1.5	.00	1.3	3.4
18	.04	.00	.00	.02	.14	.50	3.1	11	.92	.00	2.2	2.4
19	.08	.00	.00	.02	.16	.46	3.0	9.6	.74	.00	7.5	2.0
20	.05	.00	.00	.02	.18	.39	3.5	8.0	1.0	.00	13	1.7
21	.04	.00	.00	.02	.20	.42	2.8	6.8	.72	.00	18	1.5
22	.04	.00	.00	.04	.16	.50	3.5	5.9	.43	.00	24	1.4
23	.03	.00	.00	.05	.15	.42	3.8	5.4	.36	.00	24	1.3
24	.03	.00	.00	.06	.14	.54	6.3	5.1	.36	.00	24	1.2
25	.03	.00	.00	.08	.15	.74	9.9	4.6	.27	.00	47	1.0
26	.01	.00	.00	.06	.16	.66	11	4.2	.16	.00	45	1.1
27	.01	.00	.00	.04	.16	.58	9.6	3.7	.19	.00	36	1.0
28	.01	.00	.00	.06	.20	.39	8.3	3.2	.20	.00	29	1.1
29	.01	.00	.00	.07	.21	.46	7.9	3.0	.12	.00	20	1.1
30	.01	.00	.00	.08	---	.47	7.1	2.7	.10	.00	15	1.2
31	.00	---	.00	.10	---	.36	---	2.3	---	.00	13	---
TOTAL	12.31	.00	.00	1.53	4.19	13.14	115.51	277.1	29.23	.44	328.25	84.8
MEAN	.40	.000	.000	.049	.14	.42	3.85	8.94	.97	.014	10.6	2.83
MAX	1.2	.00	.00	.14	.21	.75	11	19	2.8	.25	47	9.6
MIN	.00	.00	.00	.00	.08	.18	.33	2.3	.10	.00	.00	1.0
AC-FT	24	.00	.00	3.0	8.3	26	229	550	58	.9	651	168

CAL YR 1983 TOTAL 2148.55 MEAN 5.89 MAX 36 MIN .00 AC-FT 4260
WTR YR 1984 TOTAL 866.50 MEAN 2.37 MAX 47 MIN .00 AC-FT 1720

NOTE.--NO GAGE-HEIGHT RECORD DEC. 14 TO Mar. 15.

07105940 LITTLE FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°38'33", long 104°44'49", in NE¼SW¼ sec.23, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, on right bank 300 ft downstream from Military Road No. 1, 0.4 mi upstream from mouth of Rock Creek, 3.8 mi southwest of Fountain.

DRAINAGE AREA.--26.9 mi².

PERIOD OF RECORD.--May 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,560 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation, recreation, and municipal use, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 5.01 ft³/s; 3,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, May 8, 1980, gage height, 7.55 ft, from rating curve extended above 260 ft³/s; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 245 ft³/s at 2215 July 28, gage height, 6.60 ft; minimum daily discharge, 0.19 ft³/s, Mar. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.40	.36	.50	.29	.33	.48	4.1	2.3	1.1	15	14
2	.40	.40	.33	.62	.27	.35	.42	4.5	4.3	1.1	14	12
3	.40	.40	.30	.72	.27	.22	.79	5.3	3.5	1.1	12	11
4	.40	.43	.28	.80	.27	.22	.40	5.7	4.0	.87	11	8.3
5	.40	.48	.28	.72	.27	.22	.32	6.9	2.8	.81	9.6	6.8
6	.40	.45	.28	.57	.27	.22	.34	8.0	2.2	.72	8.4	5.9
7	.30	.48	.29	.33	.27	.21	.38	8.6	1.7	.70	7.1	4.5
8	.28	.34	.29	.32	.27	.21	.39	8.2	1.5	.75	6.5	3.7
9	.33	.34	.29	.29	.27	.21	.32	8.1	1.4	.78	5.8	2.7
10	.26	.32	.29	.27	.32	.21	.27	8.9	1.3	.59	4.6	2.6
11	.24	.32	.28	.27	.27	.21	.26	11	1.3	.38	3.6	1.7
12	.37	.32	.28	.27	.26	.28	.27	13	1.3	2.5	2.9	1.5
13	.26	.29	.29	.27	.28	.21	.27	22	1.2	1.2	3.1	.80
14	.25	.27	.30	.27	.31	.23	.26	17	1.3	1.1	1.5	8.4
15	.26	.27	.32	.26	.28	.21	.24	15	1.3	1.2	.58	6.1
16	.26	.27	.32	.25	.27	.20	.21	15	1.4	1.8	.24	6.3
17	.26	.48	.32	.22	.26	.19	.23	15	1.4	8.5	15	6.8
18	.26	.51	.32	.20	.29	.27	.27	12	1.3	5.4	40	5.3
19	.24	.33	.31	.20	.27	.26	.27	11	1.3	5.0	41	4.4
20	.26	.32	.30	.21	.27	.22	.36	9.9	1.2	4.9	44	3.6
21	.26	.32	.28	.25	.26	.21	.40	9.4	1.1	4.8	43	3.1
22	.26	.30	.23	.30	.23	.35	.35	8.6	1.1	4.7	50	2.8
23	.26	.30	.23	.33	.21	.33	.32	7.7	1.8	4.5	40	2.6
24	.26	.30	.21	.34	.21	.36	.28	6.9	1.8	4.4	43	2.1
25	.26	.31	.24	.34	.21	.32	2.7	6.3	1.3	4.2	62	2.1
26	.32	.33	.40	.32	.21	.33	7.4	6.0	1.2	7.3	55	2.3
27	.32	.37	.50	.31	.22	.54	6.8	5.2	1.2	3.7	38	2.4
28	.46	.39	.35	.31	.28	.42	6.4	4.1	1.2	25	29	2.6
29	.48	.40	.24	.30	.30	.32	5.9	3.8	1.6	22	24	2.9
30	.48	.39	.33	.27	---	.48	4.4	3.2	1.6	18	19	3.0
31	.40	---	.40	.26	---	.51	---	2.7	---	16	16	---
TOTAL	9.99	10.83	9.44	10.89	7.66	8.85	41.70	273.1	51.9	155.10	664.92	142.30
MEAN	.32	.36	.30	.35	.26	.29	1.39	8.81	1.73	5.00	21.4	4.74
MAX	.48	.51	.50	.80	.32	.54	7.4	22	4.3	25	62	14
MIN	.24	.27	.21	.20	.21	.19	.21	2.7	1.1	.38	.24	.80
AC-FT	20	21	19	22	15	18	83	542	103	308	1320	282

CAL YR 1983 TOTAL 1857.37 MEAN 5.09 MAX 38 MIN .16 AC-FT 3680
WTR YR 1984 TOTAL 1386.68 MEAN 3.79 MAX 62 MIN .19 AC-FT 2750

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO

LOCATION.--Lat 38°42'27", long 104°50'46", in NW¼NW¼ sec.36, T.15 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 20 ft upstream from county road bridge, 0.6 mi northwest of Rock Creek Park, 1.2 mi upstream from State Highway 115, and 3.2 mi southwest of Fort Carson.

DRAINAGE AREA.--6.79 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 6,390 ft, from topographic map.

REMARKS.--Records good except those above 25 ft^3/s, and those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 2.70 ft^3/s; 1,960 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250 ft^3/s, July 28, 1982, gage height, 4.73 ft, from rating curve extended above 30 ft^3/s; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 13	1600	19	2.17	Aug. 24	2330	22	2.21
Aug. 20	2015	*27	2.30				

Minimum daily discharge, 0.20 ft^3/s, Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	.55	.52	.39	.59	.57	.90	4.6	2.3	1.5	2.3	3.4
2	.42	.57	.51	.44	.58	.50	.84	5.0	2.8	1.3	2.4	3.0
3	.39	.50	.51	.44	.64	.50	.80	5.1	2.4	1.2	1.6	2.7
4	.40	.58	.56	.47	.65	.49	.80	5.4	2.3	1.1	.90	2.3
5	.37	.56	.55	.55	.63	.56	1.0	5.6	2.2	.87	.66	1.7
6	.35	.55	.53	.56	.67	.49	1.5	5.7	2.1	.75	.65	1.4
7	.33	.47	.50	.56	.52	.58	2.0	6.0	2.0	.66	.63	1.3
8	.41	.52	.52	.58	.50	.60	2.5	5.7	1.9	.64	.49	1.2
9	.40	.64	.52	.59	.53	.62	3.5	5.7	1.7	.72	.56	1.2
10	.40	.64	.50	.62	.59	.62	4.2	6.6	1.7	.94	.83	1.2
11	.41	.64	.50	.56	.57	.56	4.2	8.5	1.6	2.8	.51	1.2
12	.45	.73	.50	.52	.75	.58	3.8	10	1.5	3.0	.49	1.3
13	.42	.71	.50	.40	.81	.60	3.6	13	2.5	2.3	.49	.96
14	.40	.62	.44	.35	.72	.65	3.3	14	2.8	2.2	.48	.92
15	.40	.58	.44	.35	.69	.75	3.1	12	2.4	2.1	.68	.99
16	.40	.60	.43	.37	.75	.74	3.1	9.7	2.6	2.0	.43	1.5
17	.40	.56	.41	.38	.79	.70	3.1	7.8	2.6	1.8	.37	1.4
18	.40	.66	.39	.38	.79	.72	3.3	6.4	2.3	1.7	2.0	.97
19	.40	.62	.35	.38	.76	.68	3.3	5.3	2.3	1.6	8.7	.73
20	.40	.68	.25	.38	.74	.70	3.4	4.4	2.2	1.7	11	.66
21	.40	.68	.25	.38	.73	.74	3.4	4.0	2.2	1.7	15	.62
22	.40	.64	.20	.53	.65	.76	3.6	3.7	2.0	1.5	19	.62
23	.40	.55	.22	.46	.61	.80	4.2	3.4	2.0	1.3	16	.56
24	.40	.50	.22	.44	.66	.76	6.0	3.1	2.0	1.3	19	.53
25	.40	.57	.22	.45	.61	.74	7.5	3.0	1.9	1.2	22	.50
26	.40	.53	.33	.45	.60	.74	7.2	2.9	1.7	1.5	17	.54
27	.38	58	.38	.44	.57	.74	6.3	2.8	1.9	2.1	12	.50
28	.42	.62	.38	.46	.62	.74	5.5	2.7	1.8	1.9	9.4	.49
29	.43	.51	.38	.44	.66	.74	5.0	2.5	1.5	3.5	7.3	.51
30	.50	.50	.38	.50	---	.80	4.6	2.4	1.5	2.4	5.4	.53
31	.50	---	.38	.54	---	1.0	---	2.3	---	2.3	4.1	---
TOTAL	12.62	17.66	12.77	14.36	18.98	20.77	105.54	179.3	62.7	51.58	182.37	35.43
MEAN	.41	.59	.41	.46	.65	.67	3.52	5.78	2.09	1.66	5.88	1.18
MAX	.50	.73	.56	.62	.81	1.0	7.5	14	2.8	3.5	22	3.4
MIN	.33	.47	.20	.35	.50	.49	.80	2.3	1.5	.64	.37	.49
AC-FT	25	35	25	28	38	41	209	356	124	102	362	70

CAL YR 1983 TOTAL 1201.93 MEAN 3.29 MAX 18 MIN .20 AC-FT 2380
WTR YR 1984 TOTAL 714.08 MEAN 1.95 MAX 22 MIN .20 AC-FT 1420

07105950 ROCK CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°41'49", long 104°49'39", in SW¼SW¼ sec.31, T.15 S., R.66 W., Hydrologic Unit 11020003, on left bank at Fort Carson Girl Scout Camp, 0.2 mi downstream from bridge on State Highway 115 and 2.9 mi southwest of Fort Carson.

DRAINAGE AREA.--7.79 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 6,150 ft from topographic map.

REMARKS.--Records good. Some diversions above station for irrigation and other uses, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 2.08 ft³/s; 1,510 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 353 ft³/s, July 28, 1982, gage height, 6.09 ft, from floodmark, from rating curve extended above 50 ft³/s; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 24 ft³/s at 1745 May 13, gage height, 3.80 ft; no flow, Oct.1-Mar 31, July 15-Aug. 19, Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.15	3.5	1.0	.45	.00	4.4
2	.00	.00	.00	.00	.00	.00	.20	3.6	.93	.40	.00	3.8
3	.00	.00	.00	.00	.00	.00	.30	3.6	.86	.35	.00	3.1
4	.00	.00	.00	.00	.00	.00	.40	3.8	.78	.31	.00	2.7
5	.00	.00	.00	.00	.00	.00	.54	3.9	.72	.30	.00	2.2
6	.00	.00	.00	.00	.00	.00	.70	4.0	.64	.27	.00	2.0
7	.00	.00	.00	.00	.00	.00	1.0	4.4	.57	.25	.00	1.7
8	.00	.00	.00	.00	.00	.00	1.3	4.1	.57	.23	.00	1.5
9	.00	.00	.00	.00	.00	.00	2.2	4.0	.51	.22	.00	1.3
10	.00	.00	.00	.00	.00	.00	2.5	4.8	.47	.18	.00	1.2
11	.00	.00	.00	.00	.00	.00	2.6	6.8	.45	.15	.00	1.0
12	.00	.00	.00	.00	.00	.00	2.5	10	.45	.12	.00	.95
13	.00	.00	.00	.00	.00	.00	2.3	15	.42	.08	.00	.99
14	.00	.00	.00	.00	.00	.00	2.1	17	.40	.02	.00	.85
15	.00	.00	.00	.00	.00	.00	2.0	14	.40	.00	.00	.76
16	.00	.00	.00	.00	.00	.00	2.0	11	.40	.00	.00	.86
17	.00	.00	.00	.00	.00	.00	2.0	8.4	.45	.00	.00	1.8
18	.00	.00	.00	.00	.00	.00	2.0	6.3	.56	.00	.00	.78
19	.00	.00	.00	.00	.00	.00	2.2	4.0	.58	.00	.00	.67
20	.00	.00	.00	.00	.00	.00	2.4	3.3	.61	.00	1.2	.45
21	.00	.00	.00	.00	.00	.00	2.2	2.8	.57	.00	9.7	.40
22	.00	.00	.00	.00	.00	.00	2.5	2.4	.57	.00	8.4	.35
23	.00	.00	.00	.00	.00	.00	3.0	2.0	.57	.00	8.5	.26
24	.00	.00	.00	.00	.00	.00	4.1	1.9	.57	.00	12	.16
25	.00	.00	.00	.00	.00	.00	5.6	1.9	.52	.00	14	.11
26	.00	.00	.00	.00	.00	.00	5.6	1.6	.50	.00	18	.07
27	.00	.00	.00	.00	.00	.00	4.8	1.4	.55	.00	13	.05
28	.00	.00	.00	.00	.00	.00	4.3	1.4	.51	.00	8.7	.01
29	.00	.00	.00	.00	.00	.00	3.8	1.3	.46	.00	7.2	.02
30	.00	.00	.00	.00	---	.00	3.6	1.1	.47	.00	5.9	.01
31	.00	---	.00	.00	---	.00	---	1.0	---	.00	5.0	---
TOTAL	.00	.00	.00	.00	.00	.00	70.89	154.3	17.06	3.33	111.60	34.45
MEAN	.000	.000	.000	.000	.000	.000	2.36	4.98	.57	.11	3.60	1.15
MAX	.00	.00	.00	.00	.00	.00	5.6	17	1.0	.45	18	4.4
MIN	.00	.00	.00	.00	.00	.00	.15	1.0	.40	.00	.00	.01
AC-FT	.00	.00	.00	.00	.00	.00	141	306	34	6.6	221	68

CAL YR 1983 TOTAL 663.81 MEAN 1.82 MAX 16 MIN .00 AC-FT 1320
WTR YR 1984 TOTAL 391.63 MEAN 1.07 MAX 18 MIN .00 AC-FT 777

BEST C AILABLE

07105960 ROCK CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°39'16", long 104°44'48", in NE¼SW¼ sec.14, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank at edge of Military Road No. 1 on Fort Carson Military Reservation, 1.1 mi upstream from mouth at Little Fountain Creek and 3.2 mi southwest of Fountain.

DRAINAGE AREA.--16.9 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 5,600 ft, from topographic map.

REMARKS.--Records good . Diversions above this station for irrigation and recreation, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 2.28 ft^3/s; 1,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 139 ft^3/s, July 29, 1982, gage height, 4.19 ft, from rating curve extended above 50 ft^3/s; minimum daily, 0.01 ft^3/s, Aug. 31 to Sept. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft^3/s at 2115 July 28, gage height, 2.31 ft; minimum daily, 0.46 ft^3/s, Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.90	.80	.71	.72	.66	.77	3.4	1.1	.80	.61	1.5
2	.69	.83	.77	.71	.70	.65	.77	3.6	1.2	.80	.59	1.2
3	.75	.83	.77	.77	.70	.65	.77	3.7	1.2	.76	.56	.99
4	.60	.83	.77	.77	.68	.65	.71	4.0	1.3	.75	.54	.70
5	.63	.81	.76	.77	.66	.65	.81	4.4	1.3	.73	.52	.61
6	.64	.82	.77	.77	.66	.63	.79	4.9	1.3	.72	.51	.52
7	.66	.83	.77	.77	.66	.60	.75	5.5	1.2	.72	.51	.47
8	.71	.83	.77	.77	.71	.65	.71	5.3	1.2	.72	.51	.46
9	.77	.83	.77	.77	.65	.65	.72	5.2	1.1	.69	.50	.46
10	.79	.89	.77	.77	.66	.65	.71	5.3	1.1	.69	.50	.46
11	.83	.89	.77	.76	.65	.66	.65	6.2	1.1	.69	.50	.47
12	.75	.89	.77	.77	.65	.65	.65	7.7	1.1	.68	.50	.49
13	.72	.89	.83	.78	.71	.65	.62	9.8	1.1	.67	.52	.50
14	.77	.89	.83	.78	.71	.65	.60	11	1.1	.68	.52	.53
15	.77	.89	.83	.78	.71	.65	.60	10	1.0	.69	.51	.59
16	.77	.84	.78	.78	.70	.64	.57	8.8	1.0	.74	.51	.66
17	.79	.92	.79	.78	.67	.66	.55	6.9	1.0	.79	.53	.66
18	.80	.89	.82	.77	.66	.69	.60	5.8	1.0	.74	.75	.70
19	.77	.88	.77	.76	.70	.65	.60	4.4	1.0	.73	.74	.70
20	.71	.83	.82	1.0	.65	.66	.64	3.5	.98	.72	.76	.74
21	.78	.83	.83	.89	.71	.65	.74	2.8	.90	.71	4.5	.78
22	.83	.80	.83	.80	.71	.70	.76	2.1	.89	.68	9.7	.82
23	.82	.77	.83	.77	.71	.71	.71	1.7	.89	.68	9.9	.87
24	.84	.79	.80	.76	.66	.71	.71	1.4	.89	.67	14	.87
25	.85	.83	.77	.76	.65	.72	3.3	1.4	.89	.65	19	.92
26	.86	.85	.77	.76	.65	.71	5.8	1.4	.89	.78	16	.92
27	.88	.83	.83	.76	.65	.80	5.0	1.2	.82	.75	13	.97
28	.98	.83	.83	.80	.65	.77	4.4	1.1	.80	3.1	9.8	.97
29	1.2	.83	.83	.76	.71	.77	4.2	1.1	.82	2.4	6.2	1.0
30	1.5	.83	.83	.76	---	.81	3.6	1.0	.81	.73	3.1	1.0
31	1.1	---	.77	.74	---	.78	---	1.1	---	.65	1.9	---
TOTAL	25.21	25.40	24.65	24.10	19.71	21.13	42.81	135.7	30.98	26.31	118.29	22.53
MEAN	.81	.85	.80	.78	.68	.68	1.43	4.38	1.03	.85	3.82	.75
MAX	1.5	.92	.83	1.0	.72	.81	5.8	11	1.3	3.1	19	1.5
MIN	.60	.77	.76	.71	.65	.60	.55	1.0	.80	.65	.50	.46
AC-FT	50	50	49	48	39	42	85	269	61	52	235	45

CAL YR 1983 TOTAL 1050.07 MEAN 2.88 MAX 18 MIN .50 AC-FT 2080
WTR YR 1984 TOTAL 516.82 MEAN 1.41 MAX 19 MIN .46 AC-FT 1030

07106300 FOUNTAIN CREEK NEAR PINON, CO

LOCATION.--Lat 38°26'50", long 104°35'28", in NE¼NE¼ sec.31, T.18 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, near left bank on downstream side of county road bridge, 1.2 mi northeast of Pinon, and 3.2 mi upstream from Steele Hollow Creek.

DRAINAGE AREA.--849 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

REVISED RECORDS.--WDR CO-80-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,005 ft, from topographic map. Prior to Apr. 23, 1976, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions municipal use, diversions above station for irrigation of about 10,000 acres and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--11 years, 85.2 ft^3/s; 61,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s, May 8, 1980, gage height, 7.05 ft, from rating curve extended above 7,300 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft^3/s at 0200 Aug. 19, gage height, 4.60 ft; no flow, July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	39	130	125	122	92	174	317	38	.00	142	204
2	7.1	45	135	120	129	90	134	281	237	32	197	182
3	11	50	152	125	127	100	122	278	113	114	92	211
4	11	45	146	135	130	115	122	279	109	42	116	223
5	13	45	143	150	135	96	130	299	70	20	67	158
6	16	50	154	160	130	87	130	346	35	8.1	46	157
7	22	50	139	153	135	83	135	393	42	.77	193	130
8	26	45	144	151	130	86	249	345	43	.05	69	98
9	34	64	136	148	122	103	195	320	36	.55	24	70
10	45	72	132	136	122	112	192	332	36	.64	119	62
11	34	89	134	139	114	116	173	375	52	36	35	80
12	30	95	135	121	118	111	167	428	15	14	19	50
13	34	95	128	119	122	111	155	480	4.5	3.2	22	34
14	30	114	131	108	135	95	155	526	149	1.2	33	11
15	30	130	127	105	127	122	155	486	63	2.8	27	40
16	39	119	125	100	115	123	161	473	50	34	99	147
17	45	110	115	100	110	119	161	448	83	159	58	107
18	30	114	110	100	102	124	161	394	68	105	262	57
19	26	179	105	100	88	138	199	369	35	48	594	32
20	22	140	100	100	86	112	363	300	14	30	269	18
21	26	136	100	100	104	109	453	261	38	12	667	16
22	30	124	100	110	104	125	379	221	8.9	5.0	482	11
23	34	130	100	120	88	227	342	215	2.5	.07	377	7.1
24	39	135	100	125	86	165	370	152	261	.07	322	19
25	41	130	105	130	96	152	409	128	104	.07	338	22
26	39	132	110	147	100	151	383	122	41	79	282	26
27	30	130	130	122	84	173	363	123	8.3	206	301	30
28	26	130	120	122	90	191	341	113	.57	128	297	36
29	39	134	110	114	94	132	372	101	.05	346	265	128
30	50	120	120	107	---	128	356	86	.01	120	259	121
31	45	---	120	114	---	219	---	57	---	231	218	---
TOTAL	913.1	2991	3836	3806	3245	3907	7201	9048	1756.83	1778.52	6291	2487.1
MEAN	29.5	99.7	124	123	112	126	240	292	58.6	57.4	203	82.9
MAX	50	179	154	160	135	227	453	526	261	346	667	223
MIN	7.1	39	100	100	84	83	122	57	.01	.00	19	7.1
AC-FT	1810	5930	7610	7550	6440	7750	14280	17950	3480	3530	12480	4930

CAL YR 1983 TOTAL 62245.10 MEAN 171 MAX 840 MIN 7.1 AC-FT 123500
WTR YR 1984 TOTAL 47260.55 MEAN 129 MAX 667 MIN .00 AC-FT 93740

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07106300 FOUNTAIN CREEK NEAR PINON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1976 to current year. Monthly sampling was discontinued in December 1983.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to September 1979.
WATER TEMPERATURE: October 1976 to September 1979.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,070 micromhos July 24, 1979; minimum, 204 micromhos several days in October and November, 1978.
WATER TEMPERATURES: Maximum, 34.5°C July 24, 1977; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT									
05...	1445	15	1320	--	23.0	--	--	--	--
12...	1430	34	1280	8.2	18.0	7.7	5.6	--	--
NOV									
09...	1455	62	1200	--	11.0	--	--	--	--
16...	1525	122	1210	8.1	9.5	9.4	5.3	--	--
DEC									
12...	1520	132	795	--	7.0	--	--	--	--
14...	1500	135	1080	8.2	1.5	12.3	29	--	--
JAN									
11...	1255	143	1010	--	5.0	--	--	--	--
FEB									
08...	1405	133	1000	--	7.5	--	--	--	--
MAR									
12...	1435	124	1000	--	13.0	--	--	--	--
APR									
10...	1530	185	800	--	17.0	--	--	--	--
MAY									
10...	1210	295	628	--	18.0	--	--	--	--
24...	1540	149	730	--	26.0	--	--	--	--
31...	1225	57	998	--	25.0	--	--	--	--
JUN									
07...	0815	52	1000	--	13.0	--	--	--	--
13...	1315	67	1110	--	13.0	--	--	--	--
JUL									
10...	1240	1.2	1180	--	27.0	--	--	--	--
AUG									
02...	1350	78	1010	--	27.0	--	--	--	--
SEP									
10...	1330	67	1100	--	26.0	--	--	--	--
11...	1800	58	1180	8.4	20.5	6.9	--	330	87
20...	1315	22	1190	--	26.0	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	ALKA-LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT								
12...	--	--	161	2.8	.090	1.5	1.6	4.4
NOV								
16...	--	--	171	3.1	.340	1.6	1.9	5.0
DEC								
14...	--	--	59	3.4	2.90	2.0	4.9	8.3
SEP								
11...	28	188	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP			
11...	<10	<3	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
SEP	
11...	8.6

07106500 FOUNTAIN CREEK AT PUEBLO, CO

LOCATION.--Lat 38°17'16", long 104°36'02", in SE¼SW¼ sec.19, T.20 S., R.64 W., Pueblo County, Hydrologic Unit 11020003, on left bank at upstream side of bridge on U.S. Highway 50 at Pueblo and 2.6 mi upstream from mouth.

DRAINAGE AREA.--926 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1922 to September 1925, October 1940 to September 1965, February 1971 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WDR CO-79-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,705 ft, from topographic map. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1940, and WSP 1921 for changes prior to Sept. 30, 1965. Feb. 1, 1971, to Sept. 30, 1976, water-stage recorder at site 1.4 mi upstream at datum 4,725.30 ft, National Geodetic Vertical Datum of 1929 (unadjusted).

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions for irrigation of about 14,000 acres above station and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--41 years (water years 1923-25, 1941-65, 1972-84), 64.7 ft³/s; 46,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,000 ft³/s June 17, 1965, gage height, 19.0 ft, from floodmarks, site and datum then in use, from rating curve extended above 400 ft³/s, on basis of contracted-opening measurement of peak flow; no flow at times many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903, that of June 17, 1965. Flood of June 4, 1921, reached a discharge of 34,000 ft³/s, by slope-area measurement. Flood of May 30, 1935, reached a discharge of 35,000 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,940 ft³/s at 1530 July 26, gage height, 6.07 ft; minimum daily, 0.86 ft³/s, July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	76	118	110	106	124	179	258	56	.86	274	210
2	9.3	79	124	110	112	112	146	222	248	203	289	200
3	12	78	130	120	112	118	134	234	131	232	170	220
4	12	68	148	120	124	124	140	252	102	59	172	250
5	14	78	136	130	136	130	142	276	86	31	155	200
6	19	85	142	140	129	118	147	312	59	21	141	180
7	21	79	140	160	138	124	146	358	61	13	243	160
8	23	70	140	180	131	124	238	299	59	8.5	156	130
9	41	74	127	180	136	136	218	257	48	5.7	141	100
10	49	69	118	170	130	136	227	240	37	6.9	179	80
11	32	65	119	150	136	150	201	288	27	25	129	65
12	33	73	114	133	130	148	213	359	21	15	123	43
13	48	75	112	127	130	157	181	417	16	6.0	121	35
14	49	78	112	110	154	142	178	435	113	7.5	131	29
15	41	69	114	100	142	142	179	469	49	94	108	32
16	60	87	110	90	136	146	182	464	46	82	156	76
17	67	73	105	85	130	131	184	487	64	94	175	75
18	46	72	100	80	130	131	186	474	57	51	314	56
19	45	124	100	82	124	143	220	434	47	29	1220	34
20	47	100	90	85	130	155	342	315	29	13	1070	26
21	59	96	85	85	136	140	320	244	32	7.3	747	21
22	58	89	80	90	142	161	256	212	25	4.3	1240	16
23	66	89	80	95	136	213	286	203	23	2.8	471	13
24	65	89	80	100	136	179	297	128	202	2.5	433	13
25	65	93	80	112	130	165	294	120	97	1.5	871	23
26	50	98	90	93	130	159	339	127	70	744	406	27
27	56	93	100	89	106	167	294	146	27	200	334	36
28	51	97	95	89	130	185	299	125	17	150	243	49
29	61	118	95	93	136	135	332	127	7.6	810	260	69
30	77	96	100	96	---	144	345	115	1.7	160	250	118
31	86	---	110	96	---	204	---	77	---	358	230	---
TOTAL	1373.3	2530	3394	3500	3778	4543	6845	8474	1858.3	3437.86	10952	2586
MEAN	44.3	84.3	109	113	130	147	228	273	61.9	111	353	86.2
MAX	86	124	148	180	154	213	345	487	248	810	1240	250
MIN	9.3	65	80	80	106	112	134	77	1.7	.86	108	13
AC-FT	2720	5020	6730	6940	7490	9010	13580	16810	3690	6820	21720	5130

CAL YR 1983 TOTAL 69006.30 MEAN 189 MAX 920 MIN 9.3 AC-FT 136900
WTR YR 1984 TOTAL 53271.46 MEAN 146 MAX 1240 MIN .86 AC-FT 105700

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07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT								
05...	1140	14	1690	--	19.0	--	--	--
12...	1510	40	--	--	--	--	3.8	--
NOV								
09...	1050	69	1500	--	8.0	--	--	--
16...	1610	89	1180	8.2	9.5	9.0	4.0	--
DEC								
12...	1235	142	900	--	6.0	--	--	--
14...	1545	124	1240	8.3	2.5	11.5	18	--
JAN								
10...	1610	204	1080	--	3.5	--	--	--
17...	1100	85	--	8.4	.0	12.9	12	--
FEB								
08...	1215	148	1180	--	6.0	--	--	--
16...	1510	136	1200	8.2	7.0	10.4	E21	--
MAR								
09...	1010	144	905	--	5.5	--	--	--
15...	1745	142	1120	--	12.0	8.7	9.0	--
APR								
10...	1340	249	900	--	17.0	--	--	--
19...	1720	230	938	8.0	16.0	8.0	6.6	--
MAY								
08...	1225	318	790	--	14.0	--	--	--
11...	1630	288	750	8.1	21.5	8.0	4.0	--
15...	1010	486	566	--	15.5	--	--	--
JUN								
06...	1625	59	1180	--	20.0	--	--	--
08...	1550	59	--	8.4	22.0	8.3	2.6	--
13...	1115	16	1500	--	25.0	--	--	--
JUL								
02...	1000	149	1230	--	19.0	--	--	--
05...	1255	34	1540	--	29.0	--	--	--
09...	1450	5.7	1810	--	27.0	--	--	--
11...	2000	45	1240	8.3	24.0	5.9	18	--
17...	0930	34	1380	--	21.5	--	--	--
23...	1505	3.0	2380	--	30.0	--	--	--
27...	1005	230	1100	--	19.0	--	--	--
AUG								
03...	1615	520	1000	8.0	26.5	6.2	5.0	--
07...	1110	304	770	--	22.5	--	--	--
21...	1320	488	700	--	24.0	--	--	--
24...	1125	315	900	--	21.0	--	--	--
SEP								
11...	1150	69	1380	--	20.5	--	--	--
11...	1945	--	1370	8.5	19.5	7.2	--	200
20...	1445	32	1600	--	25.0	--	--	--
28...	1620	50	1460	8.5	6.0	10.2	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
NOV								
16...	--	--	196	3.6	.140	1.7	1.8	5.4
DEC								
14...	--	--	327	4.1	1.60	1.5	3.1	7.2
JAN								
17...	--	--	119	4.6	2.70	1.7	4.4	9.0
FEB								
16...	--	--	540	4.4	.150	4.2	4.3	8.7
MAR								
15...	--	--	594	6.1	.280	1.8	2.1	8.2
APR								
19...	--	--	849	5.0	.080	2.9	3.0	8.0
MAY								
11...	--	--	508	3.5	.030	.67	.70	4.2
JUN								
08...	--	--	88	3.6	.040	.86	.90	4.5
JUL								
11...	--	--	2840	3.3	.130	5.9	6.0	9.3
AUG								
03...	--	--	2890	2.2	.080	5.4	5.5	7.7
SEP								
11...	430	47	--	--	--	--	--	--
28...	--	--	132	5.1	.050	.85	.90	6.0

E ESTIMATED.

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP			
11...	<10	<3	3

07108900 ST. CHARLES RIVER AT VINELAND, CO

LOCATION.--Lat 38°14'44", long 104°29'09", in NE¼SW¼ sec.6, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank at right downstream end of downstream bridge on U.S. Highway 50C, 1.6 mi west of Vineland, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--474 mi².

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,581.58 ft, (Colorado Division of Highways benchmark).

REMARKS.--Records good except those for winter period and those above 2,000 ft³/s, which are poor. Natural flow of stream affected by diversions above station for irrigation of about 8,500 acres, and for industrial uses, and return flow from land irrigated by Bessemer Ditch. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 46.1 ft³/s; 33,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,560 ft³/s, Aug. 11, 1982, gage height, 12.70 ft, from rating curve extended above 1,800 ft³/s; minimum daily, 0.25 ft³/s, Apr. 25, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1901, 56,000 ft³/s, at a site 5.0 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,310 ft³/s, at 0530 Aug. 22, gage height, 11.21 ft, from rating curve extended above 1,800 ft³/s; minimum daily, 7.6 ft³/s, Aug.22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	12	12	23	20	28	63	99	100	15	35	20
2	15	11	12	24	25	27	65	96	150	23	251	32
3	14	11	12	29	20	26	62	99	137	55	42	46
4	15	12	12	22	18	29	58	108	122	40	33	21
5	14	13	11	24	19	27	49	114	111	37	31	18
6	12	13	12	24	19	29	55	109	102	29	28	17
7	11	12	13	27	19	28	78	143	94	19	28	15
8	14	12	13	26	17	26	80	153	75	14	47	17
9	16	13	12	17	17	26	70	125	67	13	26	15
10	15	15	13	14	19	26	78	124	64	21	17	15
11	13	15	14	14	16	25	114	171	64	29	30	15
12	14	14	15	14	15	26	117	255	56	14	31	17
13	13	14	16	13	20	27	111	317	45	14	26	16
14	14	13	16	13	18	27	102	367	40	15	22	15
15	11	15	16	12	15	32	102	388	37	17	12	18
16	12	12	15	12	17	37	104	408	27	25	7.6	16
17	14	12	14	12	16	36	108	384	29	26	7.8	16
18	13	13	14	11	15	43	113	330	26	20	10	14
19	13	15	13	11	15	52	120	299	24	13	240	12
20	13	13	12	12	20	43	140	255	22	12	60	13
21	14	12	11	13	25	42	155	258	22	13	120	13
22	14	12	10	13	23	40	136	247	20	13	1090	12
23	14	12	10	14	20	49	125	264	18	14	211	12
24	14	11	11	14	22	44	128	286	20	15	83	12
25	12	13	13	14	23	45	131	325	20	16	38	12
26	9.8	13	15	14	22	50	125	287	21	31	35	13
27	8.9	11	15	15	20	69	117	254	21	42	29	12
28	12	13	14	15	25	69	114	216	21	40	25	12
29	13	12	14	16	30	57	118	169	17	42	23	13
30	11	11	17	16	---	68	109	135	15	35	22	14
31	12	---	20	17	---	66	---	105	---	50	21	---
TOTAL	411.7	380	417	515	570	1217	3047	6890	1587	762	2681.4	493
MEAN	13.3	12.7	13.5	16.6	19.7	39.3	102	222	52.9	24.6	86.5	16.4
MAX	21	15	20	29	30	69	155	408	150	55	1090	46
MIN	8.9	11	10	11	15	25	49	96	15	12	7.6	12
AC-FT	817	754	827	1020	1130	2410	6040	13670	3150	1510	5320	978

CAL YR 1983 TOTAL 30405.7 MEAN 83.3 MAX 667 MIN 8.9 AC-FT 60310
WTR YR 1984 TOTAL 18971.1 MEAN 51.8 MAX 1090 MIN 7.6 AC-FT 37630

07109500 ARKANSAS RIVER NEAR AVONDALE, CO

LOCATION.--Lat 38°14'53", long 104°23'55", in NE¼SW¼ sec.1, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank 15 ft downstream from bridge on Sixmile Rd., 0.3 mi upstream from Sixmile Creek, and 2.6 mi west of Avondale.

DRAINAGE AREA.--6,327 mi².

PERIOD OF RECORD.--Streamflow records, May 1939 to September 1951, February 1965 to current year. Water-quality data available, April to October 1976, April 1979 to September 1980.

REVISED RECORDS.--WSP 1087: 1942. WSP 1311: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,509.53 ft, National Geodetic Vertical Datum of 1929. Prior to February 1965, at site 550 ft downstream at datum 1.37 ft, lower.

REMARKS.--Records good except those for December and January, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres and municipal use, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1940-51, 1966-73), 867 ft³/s; 628,100 acre-ft/yr, prior to completion of Pueblo Dam: 10 years (water years 1975-84), 903 ft³/s; 654,200 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50,000 ft³/s, June 18, 1965, gage height, 9.77 ft, from rating curve extended above 6,700 ft³/s, on basis of records for station near Pueblo and indirect measurements of peak flow on Fountain Creek at Pueblo, Chico Creek near North Avondale, and Arkansas River near North Avondale; minimum daily, 50 ft³/s, Apr. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s at 0800 Aug. 22, gage height, 6.82 ft; minimum daily, 261 ft³/s, Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	545	288	360	322	298	774	2330	4430	4100	2550	2600
2	745	548	316	370	305	305	725	3630	4760	4340	2500	2260
3	871	675	347	352	295	303	707	5300	4900	5210	2830	1920
4	1200	565	373	351	358	311	630	5540	4820	4400	2160	1760
5	1250	584	369	377	378	318	594	3640	4470	3910	2540	1600
6	1230	577	374	399	395	303	613	1210	3770	3330	2010	1700
7	1170	574	329	405	337	310	634	1210	3090	2590	2240	1900
8	1090	574	331	383	296	311	827	903	2930	2440	2430	1810
9	1050	558	340	385	290	307	2040	810	2780	2450	2450	1530
10	913	543	340	365	287	316	2080	1050	2460	2810	2590	1350
11	856	579	334	350	291	309	900	1230	2420	3590	2250	1310
12	811	578	334	335	289	318	3370	1340	2980	3850	[illegible]	1140
13	689	583	327	335	292	303	4420	1660	3900	2880	1770	890
14	447	592	314	345	298	311	981	1980	2620	2590	1610	944
15	451	451	319	310	299	527	913	1940	2480	2560	2090	1010
16	460	298	322	286	290	640	912	2270	3750	2720	2400	1040
17	520	280	335	310	281	640	912	3000	4540	2520	2560	1060
18	513	288	307	266	281	650	1160	2870	4580	2310	3140	1090
19	472	378	300	265	287	689	1240	2850	4180	2180	4640	1010
20	444	347	300	265	282	698	1220	2640	3840	1790	5270	965
21	497	329	290	270	299	691	1150	2460	3700	2090	5330	840
22	524	314	280	270	313	689	1070	2440	3810	2660	5460	882
23	528	287	290	270	312	802	910	3390	4030	2610	3980	963
24	504	283	300	300	306	791	1120	3910	4230	2190	4880	932
25	502	290	310	320	299	753	1170	5240	4160	2160	5400	884
26	524	292	310	332	303	774	1230	5580	4240	3250	5300	890
27	542	275	300	345	297	838	1320	5520	4430	3030	3770	850
28	541	261	300	344	294	882	1210	5460	4340	2100	3460	779
29	537	270	300	333	292	762	1220	4870	4200	2560	3440	743
30	538	278	320	329	---	710	1440	4420	4080	2530	3380	691
31	545	---	340	328	---	783	---	4290	---	2810	3060	---
TOTAL	21372	12996	9939	10255	8868	16642	37492	94983	114970	90560	99520	37343
MEAN	689	433	321	331	306	537	1250	3064	3832	2921	3210	1245
MAX	1250	675	374	405	395	882	4420	5580	4900	5210	5460	2600
MIN	408	261	280	265	281	298	594	810	2420	1790	1610	691
AC-FT	42390	25780	19710	20340	17590	33010	74370	188400	228000	179600	197400	74070

CAL YR 1983 TOTAL 490551 MEAN 1344 MAX 6540 MIN 261 AC-FT 973000
WTR YR 1984 TOTAL 554940 MEAN 1516 MAX 5580 MIN 261 AC-FT 1101000

07116500 HUERFANO RIVER NEAR BOONE, CO

LOCATION.--Lat 38°13'30", long 104°15'37", in NE¼NE¼ sec.18, T.21 S., R.61W., Pueblo County, Hydrologic Unit 11020006, at right upstream end of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 1.6 mi south of Boone.

DRAINAGE AREA.--1,875 mi².

PERIOD OF RECORD.--January 1922 to September 1925 (monthly and annual discharge only, published in WSP 1311 as near Nepesta), October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,443.75 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period which are poor. Natural flow of stream affected by diversions for irrigation of about 48,000 acres, and return flow from irrigated areas. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years (water years 1923-25, 1980-84), 43.1 ft³/s; 31,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Aug. 1, 1923, gage height, 9.4 ft, datum then in use, from rating curve extended above 1,200 ft³/s, on the basis of slope-area measurement of peak flow; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,600 ft³/s at 0445 Aug. 22, gage height, 9.95 ft; maximum gage height, 9.99 ft at 1430, Feb. 2, (backwater from ice); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	7.8	5.0	40	120	43	79	39	198	.26	.00	9.8
2	1.0	3.9	4.0	40	95	43	73	35	141	.00	217	16
3	.00	3.4	5.0	45	100	39	79	25	102	3.2	33	49
4	.00	3.9	6.0	50	95	32	127	13	61	1.7	23	13
5	.00	4.2	5.0	60	100	35	250	9.8	45	.00	.94	6.7
6	.00	2.2	18	65	110	136	150	9.9	31	.00	.00	5.2
7	.00	2.1	31	80	90	301	49	16	21	.00	.00	3.0
8	.11	2.0	41	90	74	364	61	15	16	.00	38	4.2
9	.94	1.8	64	85	80	265	44	11	17	.00	8.5	8.8
10	1.4	1.9	53	80	72	150	34	8.3	14	.00	2.0	8.1
11	.66	2.3	45	70	69	106	28	7.2	19	.00	.85	5.2
12	1.4	2.4	36	60	59	66	22	11	9.3	.00	.19	4.5
13	.93	2.4	30	55	42	53	29	13	5.6	.00	.67	4.9
14	.88	2.1	27	50	62	51	26	19	5.8	.00	.12	4.7
15	2.7	2.1	25	48	63	51	24	37	5.6	.00	.00	3.9
16	6.2	2.5	22	45	64	51	25	47	6.3	.00	.00	6.5
17	2.8	2.7	20	50	51	72	25	82	7.4	.00	.00	7.8
18	3.3	3.8	20	45	59	63	23	111	7.2	.00	.00	10
19	5.9	5.3	20	45	61	103	23	108	5.5	.00	2.1	6.8
20	9.3	3.5	20	50	45	101	35	91	4.6	.00	5.0	5.7
21	8.3	3.2	20	60	41	71	84	91	2.6	.00	113	6.6
22	7.3	3.0	20	65	49	67	95	128	.73	.00	677	8.0
23	11	2.9	20	70	51	69	61	258	.00	.00	109	7.3
24	9.2	3.5	20	75	43	61	40	402	.00	.00	107	7.1
25	6.6	3.7	20	80	34	79	33	492	.74	.00	20	8.1
26	6.8	3.2	30	75	26	218	27	508	2.5	.00	16	9.9
27	6.7	3.0	35	80	36	320	24	504	4.2	.00	13	6.6
28	6.2	3.5	30	85	42	340	19	354	.40	.00	37	5.4
29	5.7	3.2	30	90	38	350	25	372	.19	.00	36	9.3
30	8.3	3.0	35	85	---	210	37	418	.15	.00	21	13
31	9.5	---	45	100	---	86	---	301	---	.00	15	---
TOTAL	125.02	94.5	802.0	2018	1871	3996	1651	4536.2	733.81	5.16	1495.37	265.1
MEAN	4.03	3.15	25.9	65.1	64.5	129	55.0	146	24.5	.17	48.2	8.84
MAX	11	7.8	64	100	120	364	250	508	198	3.2	677	49
MIN	.00	1.8	4.0	40	26	32	19	7.2	.00	.00	.00	3.0
AC-FT	248	187	1590	4000	3710	7930	3270	9000	1460	10	2970	526

CAL YR 1983 TOTAL 38180.53 MEAN 105 MAX 1140 MIN .00 AC-FT 75730
WTR YR 1984 TOTAL 17593.16 MEAN 48.1 MAX 677 MIN .00 AC-FT 34900

07119500 APISHAPA RIVER NEAR FOWLER, CO

LOCATION.--Lat 38°05'28", long 103°58'52", in SE¼NW¼ sec.35, T.22 S., R.59 W., Otero County, Hydrologic Unit 11020007, near right bank on downstream side of county highway bridge, 3.5 mi southeast of Fowler, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--1,125 mi².

PERIOD OF RECORD.--Streamflow records, April 1922 to September 1925, May 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1967, January to April 1969.

REVISED RECORDS.--WSP 957: 1939, 1941. WSP 1117: Drainage area. WSP 1241: 1923(M). WRD Colo. 1974: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 4,317.05 ft, National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1923, at site 3 mi downstream at different datum. Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum.

REMARKS.--Records good. Waste water from Oxford Farmers Co. and Rocky Ford Highline canals enters river above station. Diversions above station for irrigation of about 4,700 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--48 years, 29.6 ft³/s; 21,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,000 ft³/s, Aug. 22, 1923, by slope-area measurement 2 mi upstream from present site, caused by failure of Apishapa Dam 31 mi upstream; no flow Feb. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft³/s at 2130 May 13, gage height, 4.81 ft, no peak above base of 3,000 ft³/s; minimum daily, 2.0 ft³/s, Mar. 12-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	22	4.4	3.7	3.2	2.6	43	29	31	21	20	11
2	12	22	4.4	3.7	2.8	2.5	61	31	38	37	114	11
3	14	24	4.4	3.5	2.9	2.4	30	33	50	120	64	18
4	12	20	4.7	3.7	3.0	2.3	25	28	62	25	30	14
5	8.5	20	4.7	3.7	3.0	2.2	29	22	31	19	43	17
6	5.0	23	4.3	3.7	3.0	2.2	24	8.7	24	19	51	7.5
7	12	19	4.1	3.6	3.0	2.1	19	2.8	22	25	70	12
8	4.5	16	4.1	3.7	2.9	2.2	19	11	32	14	43	16
9	5.3	17	4.2	3.5	2.6	2.1	30	17	36	18	22	16
10	10	17	4.2	3.3	2.6	2.1	41	16	18	25	22	20
11	9.7	14	4.2	3.0	2.8	2.1	31	11	19	26	20	20
12	13	18	4.3	3.0	2.6	2.0	35	14	16	28	13	24
13	17	20	4.2	3.0	2.4	2.0	47	174	16	26	20	20
14	16	28	4.2	3.0	2.4	2.1	48	281	19	31	21	18
15	12	12	4.2	2.7	2.6	10	36	86	13	38	12	5.5
16	8.7	7.9	4.0	2.7	2.8	29	46	69	13	39	11	4.4
17	6.8	6.2	4.2	2.8	2.8	14	56	69	11	59	13	13
18	4.5	5.4	3.9	2.7	3.0	116	48	63	14	64	19	19
19	5.0	5.5	3.9	2.7	2.6	78	44	42	15	38	24	13
20	11	5.1	3.9	2.6	2.5	18	80	26	21	28	25	16
21	7.4	5.2	3.7	2.5	2.7	23	68	17	21	16	162	20
22	6.9	5.0	3.7	2.6	2.7	26	48	14	18	8.1	712	20
23	5.5	5.0	3.6	2.6	2.4	20	47	23	16	13	122	21
24	5.7	4.8	3.8	2.6	2.4	20	44	22	19	17	37	23
25	7.0	5.1	3.7	2.8	2.4	17	41	35	24	15	20	20
26	6.7	5.1	3.7	2.8	2.4	15	40	17	23	19	10	18
27	6.3	5.1	3.7	3.0	2.3	18	46	14	22	27	6.6	16
28	8.0	4.8	3.6	3.0	2.3	19	49	16	19	31	9.0	23
29	14	4.5	3.3	3.0	2.3	26	50	17	16	26	19	27
30	25	4.5	3.5	3.0	---	23	42	28	17	35	18	23
31	23	---	3.8	3.0	---	27	---	31	---	20	26	---
TOTAL	319.5	371.2	124.6	95.2	77.4	529.9	1267	1267.5	696	927.1	1798.6	506.4
MEAN	10.3	12.4	4.02	3.07	2.67	17.1	42.2	40.9	23.2	29.9	58.0	16.9
MAX	25	28	4.7	3.7	3.2	116	80	281	62	120	712	27
MIN	4.5	4.5	3.3	2.5	2.3	2.0	19	2.8	11	8.1	6.6	4.4
AC-FT	634	7[illegible]	247	189	154	1050	2510	2510	1380	1840	3570	1000

CAL YR 1983 TOTAL 13534.3 MEAN 37.1 MAX 282 MIN 2.9 AC-FT 26850
WTR YR 1984 TOTAL 7980.4 MEAN 21.8 MAX 712 MIN 2.0 AC-FT 15830

07120620 BIG ARROYO NEAR THATCHER, CO

LOCATION.--Lat 37°33'17", long 104°01'15", in NW¼NW¼ sec.4, T.29 S., R.59 W., Las Animas County, Hydrologic Unit 11020005, on left bank 2.4 mi from U.S. Route 350, 4.8 mi east of Thatcher, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,288 ft, from topographic map.

REMARKS.--Records good for 1983 and 1984 water years.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft^3/s, June 24, 1984, gage height, 4.53 ft; no flow most of the time.

EXTREMES FOR PERIOD MARCH TO SEPTEMBER 1983.--Peak discharges above base of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 22	0700	239	3.72	Aug. 1	1800	*770	4.29

No flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 24	1715	*1,060	4.53	Aug. 4	2100	20	3.11
Aug. 2	1900	155	3.58	Aug. 18	2015	21	3.12

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	.00	.00	.00	.00	50	.00
2						---	.00	.00	.00	.00	.00	.00
3						---	.00	.00	.00	.00	.00	.00
4						---	.00	.00	.00	.00	.00	.00
5						---	.00	.00	.40	.00	.00	.00
6						---	.00	.00	.80	.00	.00	.00
7						---	.01	.00	.00	.00	.00	.00
8						---	.08	.00	.00	.00	.00	.00
9						---	.06	.00	.00	.00	.00	.00
10						---	.00	.00	.00	.00	.00	.00
11						---	.00	.00	.00	.00	.00	.00
12						---	.00	.00	.00	.00	.00	.00
13						---	.00	.00	.00	.00	.00	.00
14						---	.00	.00	.00	.00	.00	.00
15						.00	.00	.00	.00	.00	.00	.00
16						.00	.00	.00	.00	.00	.00	.00
17						.00	.00	.00	.00	.00	.00	.00
18						.00	.00	.00	.00	.00	.00	.00
19						.00	.00	.00	.00	.00	.00	.00
20						.00	.00	.00	.00	.00	.00	.00
21						.00	.00	.00	.00	.00	.00	.00
22						.00	39	.00	.00	.00	.00	.00
23						.00	.02	.00	.00	.00	.00	.00
24						.00	.00	.00	.00	.00	.00	.00
25						.00	.00	.00	.00	.00	.00	.00
26						.00	.00	.00	.00	.00	.00	.00
27						.00	.00	.00	.00	.00	.00	.00
28						.00	.00	.00	.00	.00	.00	.00
29						.00	.00	.00	.00	.00	.00	.00
30						.00	.00	.00	.00	.00	.00	.00
31						.00	---	.00	---	.00	.00	---
TOTAL						---	39.17	.00	1.20	.00	50.00	.00
MEAN						---	1.31	.000	.040	.000	1.61	.000
MAX						---	39	.00	.80	.00	50	.00
MIN						---	.00	.00	.00	.00	.00	.00
AC-FT						---	78	.00	2.4	.00	99	.00

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.6	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.37	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.92	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.79	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	34.03	.00	8.19	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	1.13	.000	.26	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	3.6	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	67	.00	16	.00

WTR YR 1984 TOTAL 42.22 MEAN .12 MAX 34 MIN .00 AC-FT 84

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: July 1983 to current year.

INSTRUMENTATION.--Pumping sediment sampler since July 1983.

REMARKS.--Records are fair for 1983 water year. Sediment record was not estimated for those periods where flow did occur prior to Aug. 1, 1983. Records are considered good for 1984 water year. No flow most of the time. Daily water-quality data for specific conductance and temperature will be published in subsequent report.

EXTREMES FOR 1983 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,060 mg/L Aug. 1; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 3,760 tons Aug. 1; minimum daily, no flow most time.

EXTREMES FOR 1984 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 2,630 mg/L, June 24 and Aug. 21; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 3,170 tons June 24; minimum daily, no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
AUG										
01...	1725	290	880	19.0	420	130	27	60	7.9	35
01...	1745	570	--	19.0	--	--	--	--	--	--
01...	1755	740	1500	19.0	590	150	34	88	7.4	38
01...	1800	760	--	19.0	--	--	--	--	--	--
01...	1810	420	--	19.0	--	--	--	--	--	--
01...	1832	96	--	19.0	--	--	--	--	--	--
01...	1840	110	1040	19.0	460	140	26	62	6.9	41
01...	1845	43	--	19.0	--	--	--	--	--	--
01...	1852	35	--	19.0	--	--	--	--	--	--
01...	1856	28	--	19.0	--	--	--	--	--	--
01...	1902	23	--	19.0	--	--	--	--	--	--
01...	1910	17	--	19.0	--	--	--	--	--	--
01...	1955	7.3	--	19.0	--	--	--	--	--	--
01...	2137	1.8	--	19.0	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
AUG									
01...	510	6.9	.60	9.3	770	1.0	1240	.78	[illegible]
01...	--	--	--	--	--	--	--	--	--
01...	750	6.7	.70	6.4	1100	1.5	8530	.79	.050
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	540	5.7	.70	6.3	812	1.1	--	.49	.030
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
AUG									
01...	<1	<10	410	300000	540	240	5100	43	1500
01...	--	--	--	--	--	--	--	--	--
01...	<1	<10	190	320000	77	180	[illegible]	11	1400
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	66	--	--	10	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--

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07120620 BIG ARROYO NEAR THATCHER, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
JUN										
24...	1820	43	--	--	--	--	--	--	--	--
24...	1829	--	476	--	160	50	7.9	28	5.4	--
24...	1855	9.9	--	--	--	--	--	--	--	--
24...	1906	--	571	--	190	60	9.9	36	6.4	55
24...	1940	3.7	--	--	--	--	--	--	--	--
24...	1947	--	622	--	230	73	11	36	6.6	61
24...	2000	--	639	--	240	75	12	38	6.8	57
24...	2030	2.0	--	--	--	--	--	--	--	--
24...	2035	--	698	--	260	81	13	44	6.5	59
AUG										
02...	2015	4.9	509	--	160	53	7.9	38	5.2	35
02...	2030	4.5	540	--	160	51	8.0	38	5.4	39
02...	2040	3.4	--	--	--	--	--	--	--	--
02...	2050	3.1	472	--	140	46	6.9	34	5.2	39
04...	2046	20	285	18.5	56	18	2.6	30	3.7	44
04...	2112	20	301	18.5	85	28	3.6	20	5.2	43
04...	2130	13	--	18.5	--	--	--	--	--	--
04...	2145	11	391	18.5	120	38	4.9	29	4.6	44
21...	2300	3.7	--	20.0	--	--	--	--	--	--
21...	2340	4.2	374	20.0	120	38	6.2	29	6.8	50
21...	2345	3.4	--	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN										
24...	--	--	--	--	--	--	--	--	--	--
24...	160	7.8	.40	6.4	--	.42	.75	.010	9	1
24...	--	--	--	--	--	--	--	--	--	--
24...	200	15	.40	6.5	370	.50	.54	.030	25	5
24...	--	--	--	--	--	--	--	--	--	--
24...	240	6.5	.40	6.4	420	.57	.78	.030	10	4
24...	240	6.5	.40	6.5	420	.57	.78	.020	16	2
24...	--	--	--	--	--	--	--	--	--	--
24...	280	7.3	.40	6.3	470	.64	.66	.020	9	<1
AUG										
02...	210	6.0	.50	6.5	350	.48	.38	.020	14	4
02...	210	6.2	.50	7.1	350	.49	.33	.040	24	9
02...	--	--	--	--	--	--	--	--	--	--
02...	180	5.3	.40	6.6	310	.42	.33	.020	30	4
04...	70	6.1	.60	8.3	170	.25	<.10	.050	65	5
04...	86	4.5	.40	7.3	180	.27	.23	.050	75	11
04...	--	--	--	--	--	--	--	--	--	--
04...	130	5.8	.30	7.4	250	.34	.38	.020	11	4
21...	--	--	--	--	--	--	--	--	--	--
21...	110	5.4	.40	8.0	230	.30	.37	.020	77	6
21...	--	--	--	--	--	--	--	--	--	--

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG					
01...	1725	290	--	--	--
01...	1745	570	49000	75400	91
01...	1755	740	--	--	--
01...	1800	760	41900	86000	--
01...	1810	420	36500	41400	94
01...	1832	96	26000	6740	--
01...	1840	110	--	--	--
01...	1845	43	20100	2330	--
01...	1852	35	16900	1600	--
01...	1856	28	16000	1210	97
01...	1902	23	11000	683	--
01...	1910	17	11700	537	--
01...	1955	7.3	5510	109	--
01...	2137	1.8	1720	8.4	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN					
24...	1820	43	9340	1080	92
24...	1855	9.9	5720	153	3
24...	1940	3.7	3030	30	100
24...	2030	2.0	1780	9.6	100
AUG					
02...	2015	4.9	--	--	--
02...	2030	4.5	--	--	--
02...	2040	3.4	6470	59	98
02...	2050	3.1	--	--	--
04...	2046	20	--	--	--
04...	2112	20	--	--	--
04...	2130	13	9800	344	99
04...	2145	11	--	--	--
21...	2300	3.7	7380	74	100
21...	2340	4.2	--	--	--
21...	2345	3.4	7100	65	99

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1							---		
2							---		
3							---		
4							---		
5							---		
6							---		
7							---		
8							---		
9							---		
10							---		
11							---		
12							---		
13							---		
14							---		
15							.00		
16							.00		
17							.00		
18							.00		
19							.00		
20							.00		
21							.00		
22							.00		
23							.00		
24							.00		
25							.00		
26							.00		
27							.00		
28							.00		
29							.00		
30							.00		
31							.00		
TOTAL							0.00		
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.40		
6	.00			.00			.80		
7	.01			.00			.00		
8	.08			.00			.00		
9	.06			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	39			.00			.00		
23	.02			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	39.17			0.00			1.20		

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07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00			50	3060	3760	.00		
2	.00			.00	9	.00	.00		
3	.00			.00	---	---	.00		
4	.00			.00	---	---	.00		
5	.00			.00	---	---	.00		
6	.00			.00	---	---	.00		
7	.00			.00	---	---	.00		
8	.00			.00	---	---	.00		
9	.00			.00	---	---	.00		
10	.00			.00	---	---	.00		
11	.00			.00	---	---	.00		
12	.00			.00	---	---	.00		
13	.00			.00	---	---	.00		
14	.00			.00	---	---	.00		
15	.00			.00	---	---	.00		
16	.00			.00	---	---	.00		
17	.00			.00	---	---	.00		
18	.00			.00	---	---	.00		
19	.00			.00	---	---	.00		
20	.00			.00	---	---	.00		
21	.00			.00	---	---	.00		
22	.00			.00	---	---	.00		
23	.00			.00	---	---	.00		
24	.00			.00	---	---	.00		
25	.00			.00	---	---	.00		
26	.00			.00	---	---	.00		
27	.00			.00	---	---	.00		
28	.00			.00	---	---	.00		
29	.00			.00	---	---	.00		
30	.00			.00	---	---	.00		
31	.00			.00	---	---	---		
TOTAL	0.00			50.00	---	3760.00	0.00		
YEAR	90.37		3760.00						

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07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00			.00	---	---
2	.00			.00			.00	---	---
3	.00			.00			.00	---	---
4	.00			.00			.00	---	---
5	.00			.00			.00	---	---
6	.00			.00			.00	---	---
7	.00			.00			.00	---	---
8	.00			.00			.00	---	---
9	.00			.00			.00	---	---
10	.00			.00			.00	---	---
11	.00			.00			.00	---	---
12	.00			.00			.00	---	---
13	.00			.00			.00	---	---
14	.00			.00			.00	---	---
15	.00			.00			.00	---	---
16	.00			.00			.00	---	---
17	.00			.00			.00	---	---
18	.00			.00			.00	---	---
19	.00			.00			.00	---	---
20	.00			.00			.00	---	---
21	.00			.00			.00	---	---
22	.00			.00			.00	---	---
23	.00			.00			.00	---	---
24	.00			.00			34	2630	3170
25	.00			.00			.03	36	.03
26	.00			.00			.00	---	---
27	.00			.00			.00	---	---
28	.00			.00			.00	---	---
29	.00			.00			.00	---	---
30	.00			.00			.00	---	---
31	---			.00			---	---	---
TOTAL	0.00			0.00			34.03	---	3170.03
		JULY			AUGUST			SEPTEMBER	
1	.00			.00	---	---	.00		
2	.00			3.6	1700	150	.00		
3	.00			.00	---	---	.00		
4	.00			1.3	1540	36	.00		
5	.00			.07	367	.60	.00		
6	.00			.00	---	---	.00		
7	.00			.00	---	---	.00		
8	.00			.00	---	---	.00		
9	.00			.00	---	---	.00		
10	.00			.00	---	---	.00		
11	.00			.00	---	---	.00		
12	.00			.00	---	---	.00		
13	.00			.00	---	---	.00		
14	.00			.00	---	---	.00		
15	.00			.00	---	---	.00		
16	.00			.00	---	---	.00		
17	.00			.00	---	---	.00		
18	.00			.92	816	21	.00		
19	.00			.10	175	.24	.00		
20	.00			.00	---	---	.00		
21	.00			.79	2630	20	.00		
22	.00			1.4	1600	15	.00		
23	.00			.01	25	.00	.00		
24	.00			.00	---	---	.00		
25	.00			.00	---	---	.00		
26	.00			.00	---	---	.00		
27	.00			.00	---	---	.00		
28	.00			.00	---	---	.00		
29	.00			.00	---	---	.00		
30	.00			.00	---	---	.00		
31	.00			.00	---	---	---		
TOTAL	0.00			8.19	---	242.84	0.00		
YEAR	42.22		3412.87						

BEST COPY AVAILABLE

07121500 TIMPAS CREEK AT MOUTH, NEAR SWINK, CO

LOCATION.--Lat 38°00'11", long 103°39'20", in NW¼SW¼ sec.35, T.23 S., R.56 W., Otero County, Hydrologic Unit 11020005, on left bank 40 ft shoreward, 125 ft upstream from left end of 20th Rd. Bridge, 1.7 mi southwest of Swink, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--496 mi^2.

PERIOD OF RECORD.--January 1922 to September 1925, March 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 4,120 ft, from topographic map. Prior to May 29, 1975, at site 140 ft downstream at datum 0.13 ft, lower.

REMARKS.--Records good. Natural flow of stream affected by minor diversions above station for irrigation, water imported from Arkansas River and Crooked Arroyo for irrigation above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years (water years 1923-25, 1969-84), 63.4 ft^3/s; 45,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s, July 10, 1978, gage height, 21.11 ft, from floodmark, from rating curve extended above 250 ft^3/s, on basis of contracted-opening measurement of peak flow; minimum daily, 3.3 ft^3/s, Aug. 7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1922, 21,400 ft^3/s, June 17, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 525 ft^3/s at 0700 Aug. 22, gage height, 5.60 ft, from rating curve extended above 250 ft^3/s, on the basis of contracted-opening measurement of peak flow; minimum daily, 12 ft^3/s, Dec. 22, 26-30, Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	65	22	15	14	13	110	120	63	89	150	91
2	67	72	22	14	14	13	110	120	65	83	250	67
3	58	65	21	14	14	13	165	130	73	114	150	69
4	56	67	20	15	14	13	180	130	81	131	110	81
5	55	69	20	15	14	13	160	140	80	101	100	95
6	54	78	19	15	14	13	167	150	68	73	100	123
7	59	77	19	16	14	13	176	160	68	100	150	91
8	65	82	19	16	14	13	137	140	73	102	98	92
9	70	78	20	17	15	26	149	130	74	110	89	89
10	69	70	22	18	16	40	153	102	58	118	103	81
11	72	60	22	18	16	14	156	85	68	165	102	78
12	84	58	22	18	16	22	140	89	72	109	74	84
13	89	76	21	17	15	38	110	108	66	101	80	85
14	91	73	20	17	15	63	157	167	68	86	88	78
15	103	87	19	16	15	140	150	93	67	89	83	54
16	64	77	18	16	15	141	159	116	66	182	76	45
17	91	73	17	16	14	134	134	113	38	143	80	108
18	98	64	17	15	14	163	130	125	58	118	86	121
19	66	62	17	16	13	171	130	145	59	120	75	117
20	80	64	17	14	13	164	201	104	64	102	111	118
21	77	62	14	13	13	169	250	162	64	91	119	113
22	77	61	12	13	13	169	200	127	65	57	325	109
23	45	52	13	13	12	188	150	94	61	96	203	104
24	96	23	13	13	13	187	130	93	50	94	79	115
25	112	32	13	13	14	216	120	103	74	90	112	79
26	113	63	12	13	14	203	120	120	66	89	91	79
27	85	39	12	13	13	164	120	90	62	89	95	95
28	88	27	12	13	13	164	120	75	59	94	90	115
29	70	23	12	13	13	145	150	65	65	110	72	114
30	38	22	12	13	---	106	120	63	78	125	74	117
31	72	---	13	13	---	111	---	63	---	126	89	---
TOTAL	2330	1826	532	461	407	3042	4474	3522	1973	3297	3504	2804
MEAN	75.2	60.9	17.2	14.9	14.0	98.1	149	114	65.8	106	113	93.5
MAX	113	87	22	18	16	216	250	167	81	182	325	123
MIN	38	22	12	13	12	13	110	63	38	57	72	45
AC-FT	4620	3620	1060	914	807	6030	8870	6990	3910	6540	6950	5560

CAL YR 1983 TOTAL 25384 MEAN 69.5 MAX 730 MIN 12 AC-FT 50350
WTR YR 1984 TOTAL 28172 MEAN 77.0 MAX 325 MIN 12 AC-FT 55880

07122400 CHOCKED ARROYO NEAR SWINK, CO

LOCATION.--Lat 37°58'56", long 103°35'52", in SW¼SW¼ sec.5, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank 54 ft downstream from bridge on State Highway 10, 2.0 mi upstream from mouth, and 2.8 mi southeast of Swink.

DRAINAGE AREA.--108 mi².

PERIOD OF RECORD.--February 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 4,100 ft, from topographic map.

REMARKS.--Records good except those above 30 ft³/s, which are fair. Natural flow of stream affected by minor diversions above station for irrigation, water exported above station to Timpas Creek, water imported from Arkansas River for irrigation above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 11.4 ft³/s; 8,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s, Aug. 7, 1971, gage height, 7.91 ft, from rating curve extended above 87 ft³/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s at 2030 Aug. 22, gage height, 8.40 ft, from rating curve extended above 50 ft³/s, on basis of slope-area measurements of peak flow; minimum daily, 1.5 ft³/s, Mar. 12-14, 23-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	13	4.2	2.2	2.1	1.8	25	51	22	54	26	26
2	25	15	4.1	2.2	2.0	1.7	23	41	28	59	20	32
3	23	14	4.0	2.2	2.1	1.8	21	33	30	26	26	38
4	14	7.5	4.1	2.1	2.1	1.7	28	31	31	21	27	36
5	14	8.3	3.9	2.2	2.1	1.7	50	30	10	19	30	40
6	13	7.0	3.7	2.2	2.1	1.7	44	36	7.5	11	28	43
7	13	8.2	3.9	2.2	2.1	1.7	33	42	11	17	25	35
8	16	8.5	3.9	2.2	2.2	1.6	57	34	19	18	21	33
9	18	7.3	3.7	2.2	2.1	1.6	46	30	15	19	20	24
10	16	12	3.7	2.1	2.2	1.6	36	25	14	19	16	21
11	20	12	3.5	2.2	2.2	1.6	19	26	19	51	15	20
12	18	13	3.7	2.2	2.0	1.5	11	28	14	23	16	24
13	16	18	3.6	2.2	1.9	1.5	13	45	16	20	16	20
14	21	22	3.6	2.2	1.8	1.5	32	14	18	18	11	15
15	16	22	3.5	2.1	1.8	6.6	29	6.4	15	25	7.0	23
16	17	11	3.4	2.1	2.0	10	24	14	22	30	5.9	25
17	20	11	3.3	2.0	2.0	16	6.2	17	22	27	6.0	23
18	23	6.9	3.3	2.0	2.2	17	6.7	27	29	18	6.3	26
19	19	3.5	3.3	2.0	1.9	2.1	33	44	24	28	8.5	29
20	21	3.6	3.1	2.0	1.9	1.9	43	43	28	26	12	27
21	23	3.5	2.8	2.0	1.9	1.6	14	27	19	20	30	32
22	21	3.4	2.7	1.9	1.9	1.6	14	14	14	18	354	22
23	23	3.4	2.5	2.0	1.9	1.5	21	14	14	16	211	17
24	19	2.9	2.5	2.0	1.9	1.5	13	26	12	14	57	16
25	14	2.9	2.5	2.0	1.9	1.6	26	28	14	13	20	22
26	12	3.9	2.5	2.0	1.7	1.6	63	22	13	12	22	24
27	20	5.6	2.5	2.0	1.7	1.6	71	23	11	25	27	27
28	15	5.3	2.4	2.0	1.7	1.6	49	35	11	27	32	20
29	19	5.1	2.4	2.1	1.8	1.6	54	31	11	33	17	28
30	17	4.8	2.4	2.0	---	23	44	30	6.6	32	22	32
31	15	---	2.4	2.0	---	26	---	18	---	27	33	---
TOTAL	567	264.6	101.1	64.8	57.2	139.8	948.9	880.4	520.1	768	1157.7	800
MEAN	18.3	8.82	3.26	2.09	1.97	4.51	31.6	28.4	17.3	24.8	37.3	26.7
MAX	26	22	4.2	2.2	2.2	26	71	51	31	59	354	43
MIN	12	2.9	2.4	1.9	1.7	1.5	6.2	6.4	6.6	11	5.9	15
AC-FT	1120	525	201	129	113	277	1880	1750	1030	1520	2300	1590

CAL YR 1983 TOTAL 6342.95 MEAN 17.4 MAX 118 MIN .55 AC-FT 12580
WTR YR 1984 TOTAL 6269.60 MEAN 17.1 MAX 354 MIN 1.5 AC-FT 12440

07123000 ARKANSAS RIVER AT LA JUNTA, CO

LOCATION.--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec.2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 ft upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi^2, of which 115 mi^2 is probably noncontributing.

PERIOD OF RECORD.--May to August 1889, September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903, June to November 1908 (gage heights and discharge measurements only), April 1912 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1922.

GAGE.--Water-stage recorder and nonrecording gage read twice daily. Datum of gage is 4,039.60 ft National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940, to June 6, 1967, water-stage recorder at site 300 ft upstream at present datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--61 Years (water years 1913-73), 244 ft^3/s; 176,800 acre-ft/yr, prior to completion of Pueblo Dam; 10 years (water years: 1975-84), 233 ft^3/s; 168,800 acre-ft/yr, subsequent to completion of Pueblo Dam.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 ft^3/s, June 4, 1921, gage height, 18.4 ft, site and datum then in use, from rating curve extended above 15,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow, Jan. 20-23, Mar. 20-22, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,000 ft^3/s at 2400 Aug. 22, gage height, 11.09 ft; minimum daily, 13 ft^3/s, Nov. 20, 22, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	57	248	140	180	102	64	97	1890	1420	211	792
2	89	51	290	120	180	97	55	139	2010	1280	443	500
3	108	44	331	100	140	102	47	996	2610	3920	384	336
4	257	28	305	110	110	97	47	1330	2900	3800	520	191
5	331	21	257	120	97	97	62	1220	3650	2180	337	222
6	393	30	222	130	133	176	60	170	2550	1220	139	159
7	387	44	226	140	206	199	60	120	1600	1040	653	110
8	381	47	226	160	261	305	72	105	840	405	110	140
9	370	57	250	180	143	385	77	75	985	244	195	261
10	336	64	240	180	105	357	72	60	1290	87	226	206
11	305	68	225	170	105	448	57	60	436	230	257	105
12	300	66	220	160	105	429	40	72	136	783	226	102
13	300	70	210	140	116	429	698	140	226	1750	118	118
14	270	72	150	100	295	370	654	520	1180	521	80	245
15	261	72	130	100	320	173	140	204	413	417	70	353
16	257	44	110	120	320	53	336	68	133	399	114	370
17	248	40	100	120	348	38	270	138	1150	676	72	342
18	261	28	110	110	331	36	162	952	2080	370	89	342
19	280	15	110	140	353	31	105	870	2030	230	450	381
20	261	13	100	140	375	31	329	658	1490	118	2060	381
21	270	14	100	140	364	28	535	318	1100	110	2080	399
22	280	13	90	150	353	31	326	226	890	136	9790	405
23	300	14	90	140	336	42	275	203	985	474	7100	387
24	300	14	70	140	214	42	108	594	1080	239	2300	399
25	300	13	70	150	170	45	94	1150	1280	118	2550	405
26	305	119	70	190	146	64	99	3320	1180	121	3220	435
27	336	155	110	170	124	72	102	2980	1200	784	2790	442
28	353	214	110	170	108	66	94	3090	1550	709	1500	375
29	342	235	90	190	102	51	94	3290	1280	140	1400	393
30	342	239	90	190	---	75	97	2220	1200	159	1200	336
31	166	---	150	190	---	104	---	1730	---	353	1000	---
TOTAL	8781	1962	5100	4500	6140	4575	5231	27115	41344	24433	41684	9632
MEAN	283	65.4	165	145	212	148	174	875	1378	788	1345	321
MAX	393	239	331	190	375	448	698	3320	3650	3920	9790	792
MIN	89	13	70	100	97	28	40	60	133	87	70	102
AC-FT	17420	3890	10120	8930	12130	9070	10380	53780	82010	48460	82680	19110

CAL YR 1983 TOTAL 127749 MEAN 350 MAX 4810 MIN 13 AC-FT 253400
WTR YR 1984 TOTAL 180497 MEAN 493 MAX 9790 MIN 13 AC-FT 358000

07123675 HORSE CREEK NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°05'06", long 103°21'12", in SE¼SW¼ sec.33, T.22 S., R.53 W., Bent County, Hydrologic Unit 11020008, 15 ft right of right upstream end of box culverts on State Highway 194, 3.2 mi upstream of mouth, 3.4 mi downstream from Fort Lyon Canal Aqueduct, and 7.5 mi west of Las Animas.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,975 ft, from topographic map.

REMARKS.--Records fair . Natural flow of stream affected by seepage and sluicing from Fort Lyon Canal. There is some irrigation upstream, however, amounts are unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 12.9 ft³/s; 9,350 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345 ft³/s, June 7, 1983, gage height, 4.39 ft; from rating curve extended above 130 ft³/s; no flow many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 169 ft³/s at 2030 May 3, gage height, 3.37 ft, from rating curve extended above 130 ft³/s; minimum daily, 4.8, ft³/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	8.1	8.4	6.4	9.1	8.4	12	42	28	44	60	31
2	7.5	8.1	8.4	7.0	9.5	8.4	12	34	36	50	60	41
3	8.8	8.8	9.1	7.5	8.8	8.4	11	60	41	61	60	42
4	8.1	7.8	9.9	8.1	8.8	8.4	12	38	46	55	60	38
5	4.8	7.5	8.5	9.1	8.4	7.9	11	48	48	56	65	35
6	5.3	7.2	9.0	9.1	8.8	7.6	11	44	50	55	65	42
7	6.1	7.2	11	9.9	8.8	7.5	10	38	53	57	65	38
8	6.7	8.1	9.1	9.9	8.8	7.8	12	40	62	51	65	35
9	9.1	7.8	8.1	8.2	8.4	7.5	12	41	59	50	58	27
10	7.0	7.2	7.5	7.8	7.8	8.1	8.4	35	22	42	61	34
11	6.4	7.2	7.5	7.5	7.2	7.8	12	29	14	57	50	30
12	8.4	8.1	8.1	7.2	6.7	8.1	17	18	30	41	50	30
13	7.8	9.1	8.1	6.1	6.1	8.1	10	16	25	49	54	35
14	8.1	9.9	8.4	5.8	6.1	7.8	8.8	39	33	46	36	33
15	7.0	10	7.5	5.5	7.2	9.9	8.4	31	33	40	28	35
16	7.0	8.1	5.8	5.5	6.4	9.1	11	30	33	63	22	18
17	9.9	7.8	5.5	6.0	7.0	8.8	10	29	30	74	21	16
18	7.5	7.8	5.8	6.0	12	11	8.4	29	31	65	26	24
19	7.5	6.7	6.1	6.7	7.5	7.5	9.9	62	24	60	27	36
20	6.7	7.8	6.4	7.3	5.8	12	21	45	21	56	35	38
21	7.2	8.8	6.5	7.3	6.1	17	33	38	19	46	39	29
22	8.1	8.8	5.7	6.7	7.0	16	14	38	25	36	47	30
23	8.8	8.8	5.7	8.1	7.0	13	9.9	33	28	22	53	30
24	8.1	8.8	5.7	7.0	7.8	15	19	32	36	18	53	22
25	8.4	9.9	5.7	7.0	9.5	23	30	27	41	18	59	30
26	9.1	8.4	5.8	7.2	10	22	16	26	49	20	60	34
27	8.4	7.8	5.5	7.5	9.1	17	13	32	29	25	53	34
28	9.1	7.8	6.1	8.4	7.8	15	20	36	29	40	47	41
29	8.4	8.4	6.0	9.1	5.9	13	21	29	32	60	51	54
30	9.5	8.4	6.0	9.9	---	12	44	26	34	65	52	37
31	9.9	---	6.4	9.9	---	12	---	23	---	65	46	---
TOTAL	241.7	246.2	223.3	234.7	229.4	345.1	447.8	1088	1041	1487	1528	999
MEAN	7.80	8.21	7.20	7.57	7.91	11.1	14.9	35.1	34.7	48.0	49.3	33.3
MAX	9.9	10	11	9.9	12	23	44	62	62	74	65	54
MIN	4.8	6.7	5.5	5.5	5.8	7.5	8.4	16	14	18	21	16
AC-FT	479	488	443	466	455	685	888	2160	2060	2950	3030	1980

CAL YR 1983 TOTAL 6848.5 MEAN 18.8 MAX 164 MIN 4.0 AC-FT 13580
WTR YR 1984 TOTAL 8111.2 MEAN 22.2 MAX 74 MIN 4.8 AC-FT 16090

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO

LOCATION.--Lat 38°04'51", long 103°13'09", in SE¼NE¼ sec.3, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020009, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi north of courthouse in Las Animas, and 4.2 mi upstream from Purgatoire River.

DRAINAGE AREA.--14,417 mi², of which 441 mi² are probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to current year. Water-quality data available, November 1963 to September 1966.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,883.97 ft, National Geodetic Vertical Datum of 1929. May 13 to Nov. 12, 1898, and Aug. 1 to Nov. 10, 1909, nonrecording gages near present site at different datums. May 23, 1939, to Apr. 27, 1967, water-stage recorder at site 0.4 mi downstream at datum 9.00 ft, lower.

REMARKS.--Records good except those for winter period, and those above 4,000 ft³/s, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 412,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years (water years 1940-73), 203 ft³/s; 147,100 acre-ft/yr, prior to completion of Pueblo Dam: 10 years (water years 1975-84), 211 ft³/s; 152,900 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft³/s, May 20, 1955, gage height, 15.03 ft, site and datum then in use, from rating curve extended above 24,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.9 ft³/s, July 31, Aug. 1, 3, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,150 ft³/s at 0400 Aug. 24, gage height, 7.38 ft; minimum daily, 44 ft³/s, Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	210	284	250	310	153	127	192	2240	1660	226	938
2	70	84	301	200	314	156	109	192	2290	1490	346	823
3	70	65	336	200	323	146	109	359	2960	2100	278	547
4	93	62	379	250	170	142	106	1420	3340	2650	398	384
5	293	59	362	250	154	130	103	1600	2780	2050	453	329
6	373	55	283	250	144	128	109	1250	2560	1520	179	317
7	401	52	343	250	188	191	109	372	1720	1300	492	232
8	377	52	378	250	252	268	97	305	1140	883	261	180
9	392	52	350	240	259	451	112	234	980	546	157	204
10	396	44	326	240	170	469	112	195	1120	302	185	319
11	363	52	298	228	151	501	114	173	784	236	221	197
12	327	47	293	216	148	510	102	140	359	491	295	151
13	304	44	277	178	148	462	289	161	269	1440	180	165
14	300	46	212	137	195	444	965	528	759	752	107	175
15	274	101	197	100	348	298	265	346	837	573	82	329
16	288	111	193	100	360	153	222	277	365	566	74	334
17	268	99	192	140	361	103	312	201	529	758	86	318
18	270	93	158	100	360	97	222	558	1820	552	73	317
19	228	87	150	100	360	100	192	896	2080	352	213	373
20	234	85	150	120	380	97	190	861	1520	245	1050	399
21	258	81	190	150	398	103	539	462	1250	173	1620	368
22	252	78	150	200	372	106	432	409	1160	127	3090	384
23	234	75	90	180	325	109	375	344	1200	211	5350	373
24	284	75	90	180	277	109	252	378	1220	284	4020	351
25	326	75	90	200	186	112	170	590	1300	131	2590	387
26	298	73	90	250	177	115	148	1590	1380	88	2710	448
27	277	99	150	230	170	124	148	1900	1290	88	2760	480
28	284	104	150	230	165	112	158	2680	1430	799	1790	390
29	305	176	120	250	154	115	162	2740	1390	223	1090	491
30	291	276	120	250	---	106	178	2180	1290	126	1150	471
31	298	---	200	250	---	115	---	2040	---	189	1050	---
TOTAL	8498	2622	6412	6169	7219	6225	5528	25573	43362	22905	32576	11183
MEAN	274	87.4	223	199	249	201	218	825	1445	739	1051	373
MAX	401	276	379	250	398	510	965	2740	3340	2650	5350	938
MIN	70	44	90	100	144	97	97	140	269	88	73	151
AC-FT	16860	5200	12710	12240	14320	12350	10950	50720	86010	45430	64610	22180

CAL YR 1983 TOTAL 143041 MEAN 392 MAX 5220 MIN 17 AC-FT 283700
WTR YR 1984 TOTAL 179778 MEAN 491 MAX 5350 MIN 44 AC-FT 356600

07124200 PURGATOIRE RIVER AT MADRID, CO

LOCATION.--Lat 37°07'46", long 104°38'20", in SW¼NE¼ sec.35, T.33 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 70 ft downstream from county bridge, 0.3 mi northeast of Madrid, and 1.0 mi downstream from Burro Canyon.

DRAINAGE AREA.--505 mi².

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,261.61 ft, National Geodetic Vertical Datum of 1929 (U.S. Army, Corps of Engineers bench mark).

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 6,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 67.8 ft³/s; 49,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s, July 20, 1976, gage height, 12.80 ft, from floodmarks, from rating curve extended above 300 ft³/s, on basis of drift-timed measurement of peak flow; minimum daily, 3.0 ft³/s, Feb. 23 to Mar. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 18	1645	1,190	3.85	Aug. 7	2245	1,080	3.56
June 24	1700	2,800	5.29	Aug. 14	1645	2,560	4.97
July 31	2000	*3,300	5.65	Aug. 19	1600	1,970	4.44
Aug. 6	2030	2,130	4.58	Aug. 23	1845	1,410	3.89

Minimum daily discharge, 21 ft³/s, Nov. 24, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	30	41	37	37	26	34	41	344	144	141	80
2	41	30	40	37	36	22	30	40	344	135	121	92
3	41	30	40	38	37	22	30	38	319	124	114	110
4	39	30	40	38	35	23	26	40	278	119	111	92
5	35	29	41	37	35	21	26	76	240	118	129	80
6	34	28	40	37	36	26	25	83	215	114	230	66
7	33	27	40	37	35	35	29	71	191	104	230	55
8	34	27	40	37	34	27	33	59	167	103	223	50
9	38	29	43	38	35	36	31	51	151	103	152	43
10	39	29	43	39	35	27	36	70	143	118	142	37
11	37	29	42	39	34	26	36	89	147	139	136	34
12	39	29	43	38	34	24	34	101	157	129	130	32
13	37	29	39	39	35	23	30	119	185	112	139	26
14	36	30	41	38	37	25	28	134	179	108	311	24
15	36	28	40	38	34	29	28	151	167	146	167	28
16	36	29	43	37	35	30	29	166	171	147	158	43
17	35	30	42	37	36	26	35	198	178	128	154	34
18	35	30	41	36	35	34	47	196	237	132	153	28
19	34	40	41	36	33	28	55	194	177	111	293	26
20	34	32	40	35	34	32	55	193	163	100	224	22
21	32	36	40	35	36	35	57	215	154	92	245	30
22	32	35	41	35	36	39	44	270	156	87	243	28
23	32	29	39	35	37	38	41	309	154	84	328	28
24	32	21	39	35	30	34	41	395	418	80	272	26
25	33	38	39	35	31	37	45	423	142	75	213	24
26	36	41	39	35	28	33	60	374	148	68	165	26
27	33	38	39	35	25	37	51	380	139	74	145	30
28	32	39	38	35	29	32	58	350	143	77	130	34
29	31	40	39	35	29	32	57	344	134	74	114	46
30	30	41	38	35	---	34	49	326	133	83	104	46
31	30	---	37	36	---	26	---	332	---	243	90	---
TOTAL	1088	953	1248	1134	983	919	1180	5828	5874	3472	5507	1320
MEAN	35.1	31.8	40.3	36.6	33.9	29.6	39.3	188	196	112	178	44.0
MAX	42	41	43	39	37	39	60	423	418	243	328	110
MIN	30	21	37	35	25	21	25	38	133	68	90	22
AC-FT	2160	1890	2480	2250	1950	1820	2340	11560	11650	6890	10920	2620

CAL YR 1983 TOTAL 51722.1 MEAN 142 MAX 668 MIN 7.0 AC-FT 102600
WTR YR 1984 TOTAL 29506.0 MEAN 80.6 MAX 423 MIN 21 AC-FT 58530

07124300 LONG CANYON CREEK NEAR MADRID, CO

LOCATION.--Lat 37°06'53", long 104°36'17", in SE¼NW¼ sec.6, T.34 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank 700 ft upstream from private bridge, 1.4 mi upstream from Oso Canyon, 2.2 mi southeast of Madrid, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--100 mi², approximately.

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,259.09 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 3.69 ft³/s; 2,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft³/s, July 17, 1979, gage height, 7.37 ft, from floodmarks, from rating curve extended above 1,000 ft³/s, on basis of slope-area measurements at gage heights 6.88 ft, and 7.37 ft; no flow, Feb. 22 to May 22, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 9	1530	368	4.03	Aug. 12	2130	2,130	6.66
July 15	1900	264	3.82	Aug. 14	1715	1,150	5.16
July 29	1600	264	3.82	Aug. 23	1945	340	3.68
July 31	2045	*2,650	7.00	Aug. 24	1715	315	3.62

Minimum daily discharge, 0.45 ft³/s, Nov. 23, 27-28; Dec. 22-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	.48	.48	.50	.76	.63	2.2	4.7	1.8	5.2	11	1.7
2	.75	.49	.49	.49	.86	.60	2.1	4.7	1.8	3.3	4.2	2.3
3	.70	.50	.50	.52	.70	.78	1.7	4.9	2.2	2.6	3.9	4.3
4	.70	.70	.52	.56	.69	.66	1.4	4.1	2.2	5.9	3.8	2.8
5	.68	.70	.53	.60	.72	.56	2.0	5.6	2.0	3.8	4.5	1.6
6	.66	.70	.56	.56	.79	.59	9.6	5.2	2.3	3.1	8.0	1.3
7	.62	.65	.60	.55	.72	.61	14	4.4	2.2	2.8	23	1.2
8	.58	.50	.66	.52	.67	.53	36	4.2	2.1	6.0	8.8	1.1
9	.58	.50	.60	.52	.68	.49	38	3.5	1.9	27	6.0	1.1
10	.60	.50	.60	.54	.60	.53	35	2.8	2.0	9.6	5.0	1.0
11	.57	.50	.63	.56	.55	.61	40	2.8	2.0	7.7	4.0	.95
12	.52	.49	.64	.58	.57	.67	28	2.4	1.9	11	81	.93
13	.51	.48	.66	.59	.57	.66	20	2.4	15	6.2	37	.89
14	.51	.50	.64	.60	.55	.67	16	2.4	12	5.3	108	.85
15	.52	.47	.63	.60	.62	.67	12	2.4	8.1	28	12	.97
16	.54	.50	.62	.59	.58	.67	10	2.9	9.9	12	8.0	1.0
17	.56	.50	.64	.58	.56	.67	9.2	3.8	3.6	5.9	4.6	.98
18	.58	.50	.64	.54	.51	.96	9.0	4.0	12	4.5	12	.82
19	.50	.60	.62	.52	.51	1.3	8.7	3.3	7.6	4.3	38	.81
20	.50	.58	.63	.52	.59	1.3	8.9	2.8	5.1	3.2	8.6	.74
21	.50	.48	.52	.54	.62	1.6	9.3	2.7	3.7	2.5	5.7	.69
22	.52	.48	.45	.60	.66	1.7	7.2	2.2	3.3	2.5	5.0	.80
23	.48	.45	.45	.64	.52	1.2	5.9	2.0	3.4	2.4	24	.64
24	.48	.48	.45	.64	.51	2.4	5.4	1.8	8.8	2.3	49	.53
25	.48	.50	.45	.66	.52	2.2	5.3	1.8	4.8	2.2	20	.52
26	.48	.51	.46	.68	.56	1.7	5.1	1.7	3.2	2.2	9.3	.67
27	.48	.45	.50	.70	.61	1.6	4.9	1.8	2.7	2.3	6.1	.72
28	.47	.45	.49	.75	.61	2.4	3.7	1.7	2.6	24	3.2	.73
29	.48	.46	.48	.84	.62	4.4	4.9	1.8	2.4	30	3.6	1.3
30	.48	.47	.50	.86	---	4.8	5.3	1.8	6.3	13	2.1	.87
31	.48	---	.50	.76	---	2.0	---	1.8	---	83	1.9	---
TOTAL	17.44	15.57	17.14	18.71	18.03	40.16	360.8	94.4	138.9	323.8	521.3	34.81
MEAN	.56	.52	.55	.60	.62	1.30	12.0	3.05	4.63	10.4	16.8	1.16
MAX	.93	.70	.66	.86	.86	4.8	40	5.6	15	83	108	4.3
MIN	.47	.45	.45	.49	.51	.49	1.4	1.7	1.8	2.2	1.9	.52
AC-FT	35	31	34	37	36	80	716	187	276	642	1030	69

CAL YR 1983 TOTAL 3385.11 MEAN 9.27 MAX 155 MIN .45 AC-FT 6710
WTR YR 1984 TOTAL 1601.06 MEAN 4.37 MAX 108 MIN .45 AC-FT 3180

07124400 TRINIDAD LAKE NEAR TRINIDAD, CO

LOCATION.--Lat 37°08'27", long 104°33'03", in NE¼SW¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, in valve house near center of dam on Purgatoire River and 3.2 mi southwest of courthouse in Trinidad.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR-CO-78-1: 1977(M). WDR-CO-83-1: 1981-82 (contents).

GAGE.--Water-stage recorder. Datum of gage is 6,073.64 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers).

REMARKS.--Records good. Reservoir is formed by a rock and earthfill dam completed in 1977. Storage began Aug. 19, 1977. Total capacity, 166,700 acre-ft, at elevation 6,279.99 ft. Elevation of high crest of spillway, 6,258 ft, with capacity of 119,900 acre-ft. Elevation of notch crest in spillway is 6,243.0 ft, capacity, 91,900 acre-ft. Permanent pool is 4,500 acre-ft at elevation 6,142.7 ft. Elevation of outlet invert is 6,095.0 ft. Reservoir is used for flood control, storage for irrigation, and to help control sedimentation. Figures given are total contents.

COOPERATION.--Capacity tables were furnished by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 61,800 acre-ft, Apr.26, 1983, elevation, 6,222.66 ft; no contents prior to Aug. 19, 1977.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 46,900 acre-ft, May 26, elevation, 6,210.13 ft; minimum contents, 23,200 acre-ft, Sept.30, elevation, 6183.05 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

6,175.0	18,100	6,200.0	36,800	6,220.0	58,400
6,180.0	21,200	6,210.0	46,800	6,230.0	71,800
6,190.0	28,300				

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40800	37100	37300	38600	39700	41300	43600	46700	45600	42400	34300	36300
2	40400	37100	37400	38700	39800	41300	43700	46700	45400	42200	34100	35900
3	40000	37100	37400	38700	39800	41400	43700	46800	45300	41900	34000	35600
4	39500	37000	37500	38800	39900	41500	43800	46800	45000	41600	33800	35200
5	39200	37000	37500	38800	39900	41500	43900	46900	44700	41300	33600	34800
6	38800	36900	37600	38800	40000	41500	43900	46800	44400	40900	33700	34300
7	38500	36900	37600	38900	40000	41600	44100	46800	44100	40600	33900	33800
8	38200	36800	37700	38900	40100	41700	44200	46900	43700	40200	34400	33200
9	37900	36800	37700	39000	40100	41700	44300	46900	43300	39900	34700	32600
10	37600	36800	37800	39000	40200	41800	44500	46900	43000	39600	34900	32100
11	37400	36700	37800	39100	40200	41900	44600	46900	42700	39600	35100	31500
12	37200	36700	37900	39100	40300	41900	44800	46900	42400	39600	35400	31000
13	37000	36600	37900	39200	40300	42000	44900	46900	42200	39300	35700	30400
14	36800	36500	37900	39200	40400	42000	45000	46900	42000	39000	36000	29900
15	36800	36500	37900	39300	40500	42100	45100	46800	41800	38900	36000	29400
16	36900	36600	37900	39300	40500	42100	45200	46700	41700	38800	35800	28900
17	36900	36600	37900	39300	40600	42200	45400	46600	41500	38600	35600	28500
18	37000	36700	38000	39300	40700	42300	45400	46500	41800	38300	35200	28100
19	37000	36700	38000	39300	40700	42400	45600	46300	42200	38100	35700	27600
20	37100	36800	38000	39400	40700	42500	45600	46200	42400	37800	35700	27100
21	37200	36800	38100	39400	40800	42600	45700	46000	42500	37500	35800	26600
22	37200	36900	38100	39500	40900	42700	45800	46000	42500	37200	36100	26100
23	37300	36900	38100	39500	40900	42800	46000	46000	42500	36900	36600	25600
24	37300	36900	38100	39500	41000	42900	46000	46000	42900	36600	36900	25100
25	37400	37000	38200	39500	41000	43000	46100	46100	42900	36100	37200	24700
26	37400	37100	38300	39500	41100	43000	46200	46200	42900	35700	37500	24300
27	37400	37100	38300	39600	41100	43200	46300	46100	42800	35300	37600	23900
28	37300	37100	38400	39600	41200	43200	46400	46100	42700	35000	37500	23500
29	37300	37200	38400	39600	41200	43300	46500	46000	42600	34600	37300	23300
30	37200	37200	38500	39600	---	43400	46600	45900	42500	34300	37000	23200
31	37200	---	38600	39700	---	43500	---	45700	---	34300	36700	---
MAX	40800	37200	38600	39700	41200	43500	46600	46900	45600	42400	37600	36300
MIN	36800	36500	37300	38600	39700	41300	43600	45700	41500	34300	33600	23200

CAL YR 1983 MAX 61800 MIN 36500
WTR YR 1984 MAX 46900 MIN 23200

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO

LOCATION.--Lat 37°08'37", long 104°32'49", in SW¼NE¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank at toe of dam and 3.0 mi southwest of court house in Trinidad.

DRAINAGE AREA.--672 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 6,073.64 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers). Auxiliary gage is water-stage recorder in shelter about 1,000 ft downstream.

REMARKS.--Records good. Natural flow of stream affected by diversions above station for irrigation of about 6,000 acres. Flow since Aug. 19, 1977, completely regulated by Trinidad Lake (station 07124400) immediately upstream.

AVERAGE DISCHARGE.--7 years (water years 1978-84), 82.7 ft³/s; 59,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 963 ft³/s, Sept. 10, 1981, gage height, 7.89 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 385 ft³/s at 0930 May 23, gage height, 6.70 ft, maximum gage height, 6.75 ft, May 31; no flow, Nov. 16-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	48	.06	.04	.06	.03	.03	.02	360	207	278	275
2	229	50	.06	.04	.06	.03	.03	.02	360	242	266	275
3	229	50	.06	.04	.06	.03	.03	.02	360	245	225	274
4	222	50	.06	.04	.06	.03	.03	49	360	245	206	290
5	220	50	.06	11	.06	.03	.03	71	360	253	197	221
6	214	50	.06	19	.06	.03	.03	87	355	257	191	321
7	201	50	.06	12	.06	.03	.03	64	357	257	168	326
8	201	50	7.7	.03	.06	.03	.03	63	357	257	1.4	332
9	201	50	12	.03	.06	.03	.03	63	301	253	1.3	332
10	151	50	3.4	.03	.06	.03	.03	63	279	251	1.0	335
11	139	52	.11	.03	.06	.03	.03	94	278	180	.44	335
12	134	52	.11	.31	.06	.03	.03	108	281	180	.44	335
13	134	52	.11	.11	.06	.03	.03	109	308	249	2.0	334
14	132	55	.11	.11	.06	.03	.03	178	290	258	152	313
15	39	28	2.7	.11	.06	.03	.03	251	279	258	210	299
16	.51	.00	.11	.11	.06	.03	.03	284	245	255	231	298
17	.51	.00	.11	.11	.06	.03	.03	293	245	253	259	274
18	.51	19	.11	.11	.06	.03	.03	312	142	256	277	263
19	.67	19	6.7	.11	.06	.03	.03	319	.31	258	211	263
20	.67	.06	10	.11	.06	.03	.03	319	55	258	182	293
21	.58	.06	4.6	.11	.06	.03	.03	319	103	228	108	309
22	.51	.08	.04	.11	.06	.03	.03	331	141	212	.56	308
23	.51	.06	.04	13	.06	.03	.02	366	150	212	6.5	307
24	.51	.06	.04	20	.08	.03	.02	367	174	244	8.5	279
25	.51	.06	.04	20	.04	.03	1.4	360	155	270	7.0	258
26	33	.06	.04	20	.03	.03	.02	363	173	275	4.4	253
27	57	.06	.04	20	.03	.05	.02	363	197	267	70	253
28	49	.06	.04	20	.03	.04	.02	363	197	263	164	239
29	49	.06	.04	20	.03	.04	.02	362	209	263	208	158
30	49	.06	.04	8.4	---	.04	.02	362	209	263	205	126
31	49	---	.04	.06	---	.04	---	362	---	262	252	---
TOTAL	2976.49	775.68	48.69	185.15	1.62	.99	2.20	6645.06	7280.31	7631	4093.54	8478
MEAN	96.0	25.9	1.57	5.97	.056	.032	.073	214	243	246	132	283
MAX	229	55	12	20	.08	.05	1.4	367	360	275	278	335
MIN	.51	.00	.04	.03	.03	.03	.02	.02	.31	180	.44	126
AC-FT	5900	1540	97	367	3.2	2.0	4.4	13180	14440	15140	8120	16820

CAL YR 1983 TOTAL 55716.76 MEAN 153 MAX 914 MIN .00 AC-FT 110500
WTR YR 1984 TOTAL 38118.73 MEAN 104 MAX 367 MIN .00 AC-FT 75610

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: March 1977 to September 1984. (discontinued)

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 47,000 mg/L Aug. 1, 1979; minimum daily, no flow many days during year.
SEDIMENT LOADS: Maximum daily, 45,700 tons Aug. 12, 1981; minimum daily, no flow many days during year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 85 mg/L Aug. 28; minimum daily, 0 mg/L estimated many days during year.
SEDIMENT LOADS: Maximum daily, 42 tons Sept. 7; minimum daily, 0.0 ton estimated many days during year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
04...	1500	221	33	20
27...	1140	62	19	3.2
NOV				
08...	1405	50	12	1.6
MAY				
07...	1330	62	10	1.7
JUL				
03...	1250	246	28	19
AUG				
07...	1600	178	24	12
SEP				
07...	1415	328	48	43

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	229	---	11	48	18	2.3	.06	---	.00
2	229	20	12	50	17	2.3	.06	---	.00
3	229	26	16	50	15	2.0	.06	---	.00
4	222	31	19	50	17	2.3	.06	---	.00
5	220	29	17	50	16	2.2	.06	---	.00
6	214	28	16	50	---	2.0	.06	---	.00
7	201	32	17	50	12	1.6	.06	---	.00
8	201	---	16	50	12	1.6	7.7	6	.20
9	201	28	15	50	---	2.0	12	7	.23
10	161	28	12	50	12	1.6	3.4	---	.02
11	139	30	11	52	38	5.3	.11	---	.00
12	134	30	11	52	36	5.0	.11	---	.00
13	134	26	9.4	52	36	5.1	.11	---	.00
14	132	28	10	55	---	4.0	.11	---	.00
15	39	---	3.0	28	10	1.7	2.7	10	.01
16	.51	---	.00	.00	---	.00	.11	---	.00
17	.51	---	.00	.00	---	.00	.11	---	.00
18	.51	---	.00	19	15	2.0	.11	---	.00
19	.67	---	.00	19	---	1.6	6.7	3	.08
20	.67	---	.00	.06	---	.00	10	---	.05
21	.58	---	.00	.06	---	.00	4.6	---	.00
22	.51	---	.00	.08	---	.00	.04	---	.00
23	.51	---	.00	.06	---	.00	.04	---	.00
24	.51	---	.00	.06	---	.00	.04	---	.00
25	.51	---	.00	.06	---	.00	.04	---	.00
26	33	14	2.3	.06	---	.00	.04	---	.00
27	57	18	2.8	.06	---	.00	.04	---	.00
28	49	28	3.7	.06	---	.00	.04	---	.00
29	49	---	3.0	.06	---	.00	.04	---	.00
30	49	---	3.0	.06	---	.00	.04	---	.00
31	49	17	2.2	---	---	---	.04	---	.00
TOTAL	2976.49	---	212.40	775.68	---	44.60	48.69	---	0.59
		JANUARY			FEBRUARY			MARCH	
1	.04	---	.00	.06		.00	.03		.00
2	.04	---	.00	.06		.00	.03		.00
3	.04	---	.00	.06		.00	.03		.00
4	.04	---	.00	.06		.00	.03		.00
5	11	7	.44	.06		.00	.03		.00
6	19	1	.05	.06		.00	.03		.00
7	12	---	.02	.06		.00	.03		.00
8	.03	---	.00	.06		.00	.03		.00
9	.03	---	.00	.06		.00	.03		.00
10	.03	---	.00	.06		.00	.03		.00
11	.03	---	.00	.06		.00	.03		.00
12	.31	---	.00	.06		.00	.03		.00
13	.11	---	.00	.06		.00	.03		.00
14	.11	---	.00	.06		.00	.03		.00
15	.11	---	.00	.06		.00	.03		.00
16	.11	---	.00	.06		.00	.03		.00
17	.11	---	.00	.06		.00	.03		.00
18	.11	---	.00	.06		.00	.03		.00
19	.11	---	.00	.06		.00	.03		.00
20	.11	---	.00	.06		.00	.03		.00
21	.11	---	.00	.06		.00	.03		.00
22	.11	---	.00	.06		.00	.03		.00
23	13	5	.27	.06		.00	.03		.00
24	20	---	.32	.08		.00	.03		.00
25	20	7	.38	.04		.00	.03		.00
26	20	10	.54	.03		.00	.03		.00
27	20	2	.11	.03		.00	.05		.00
28	20	3	.16	.03		.00	.04		.00
29	20	20	1.1	.03		.00	.04		.00
30	8.4	6	.35	---			.04		.00
31	.06	---	.00	---			.04		.00
TOTAL	185.15	---	3.74	1.62		0.00	0.99		0.00

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.03		.00	.02	---	.00	360	10	9.7
2	.03		.00	.02	---	.00	360	8	7.8
3	.03		.00	.02	---	.00	360	10	9.7
4	.03		.00	49	21	4.8	360	11	11
5	.03		.00	71	11	2.3	360	14	14
6	.03		.00	87	5	1.2	355	4	3.8
7	.03		.00	64	10	1.7	357	4	3.9
8	.03		.00	63	10	1.7	357	7	6.7
9	.03		.00	63	13	2.2	301	10	8.1
10	.03		.00	63	6	1.0	279	---	7.5
11	.03		.00	94	11	2.8	278	9	6.8
12	.03		.00	108	10	2.9	281	8	6.1
13	.03		.00	109	10	2.9	308	8	6.7
14	.03		.00	178	---	3.4	290	13	12
15	.03		.00	251	4	2.7	279	9	6.8
16	.03		.00	284	4	3.1	245	---	6.0
17	.03		.00	293	8	6.3	245	8	5.3
18	.03		.00	312	4	3.4	142	6	4.1
19	.03		.00	319	---	3.4	.31	---	.00
20	.03		.00	319	5	4.3	55	37	6.1
21	.03		.00	319	8	6.9	103	24	6.7
22	.03		.00	331	6	5.4	141	22	8.4
23	.02		.00	366	11	11	150	24	9.7
24	.02		.00	367	12	12	174	25	12
25	1.4		.00	360	8	7.8	155	35	15
26	.02		.00	363	---	11	173	46	22
27	.02		.00	363	---	13	197	---	21
28	.02		.00	363	16	16	197	39	21
29	.02		.00	362	10	9.8	209	43	24
30	.02		.00	362	8	7.8	209	35	20
31	---			362	---	8.7	---	---	---
TOTAL	2.20		0.00	6645.06	---	159.50	7280.31	---	301.90
		JULY			AUGUST			SEPTEMBER	
1	207	---	19	278	48	36	275	---	43
2	242	32	21	266	44	32	275	61	45
3	245	29	19	225	40	24	274	---	37
4	245	40	26	206	40	22	290	38	30
5	253	44	30	197	---	19	221	36	31
6	257	34	24	191	32	6.0	321	34	29
7	257	---	25	168	32	.00	326	48	42
8	257	38	26	1.4	---	---	332	47	42
9	253	30	20	1.3	---	.00	332	---	36
10	251	28	19	1.0	---	.00	335	32	29
11	180	19	20	.44	---	.00	335	---	29
12	180	49	24	.44	---	.00	335	---	29
13	249	33	22	2.0	---	.00	334	---	29
14	258	---	21	152	57	34	313	32	27
15	258	26	18	210	53	30	299	30	24
16	255	22	15	231	45	28	298	24	19
17	253	24	16	259	52	36	274	29	21
18	256	25	17	277	46	34	263	25	18
19	258	---	17	211	43	25	263	---	18
20	258	24	17	182	43	21	293	24	19
21	228	23	14	108	23	11	309	28	23
22	212	18	10	.56	---	.00	308	---	29
23	212	22	13	6.5	---	.07	307	---	29
24	244	24	16	8.5	---	.11	279	36	27
25	270	22	16	7.0	---	.09	258	29	20
26	275	18	13	4.4	---	.06	253	30	20
27	267	26	19	70	80	21	253	34	23
28	263	---	17	164	85	38	239	33	21
29	263	---	16	208	70	39	158	---	10
30	263	22	16	205	70	39	126	---	6.8
31	262	23	16	252	56	38	---	---	---
TOTAL	7631	---	582	4093.54	---	533.33	8478	---	805.8
YEAR	38118.73		2643.86						

07126130 VAN BREMER ARROYO NEAR THATCHER, CO

LOCATION.--Lat 37°24'36", long 104°10'19", in NW¼NW¼ sec. 19, T.30 S., R.60 W., Las Animas County, Hydrologic Unit 11020010, on left bank 3.3 mi down stream from U.S. Route 350, and 9.8 mi southwest of Thatcher.

DRAINAGE AREA.--80.6 mi², of which 11.8 mi² probably is noncontributing.

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,401 ft, from topograpgic map.

REMARKS.--No flow March 1983 through September 1984.

07126200 VAN BREMER ARROYO NEAR MODEL, CO

LOCATION.--Lat 37°20'45", long 103°57'27", in sec.13, T.31 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on right bank 3 mi upstream from mouth, 16 mi east of Model, and 33 mi northeast of Trinidad.

DRAINAGE AREA.--175 mi² of which 11.8 mi² is noncontributing, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 4,960 ft, from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years, 2.42 ft³/s; 1,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s, May 26, 1967, gage height, 9.4 ft, from floodmarks, from rating curve extended above 65 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 9.98 ft, Aug. 9, 1979 from floodmark; no flow, June 7-13, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 223 ft³/s at 1800 July 10, gage height, 2.93 ft; no peak above base of 450 ft³/s; minimum daily, 0.03 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.06	.06	.03	.09	.20	.21	.21	.15	.09	.06	.12
2	.09	.06	.04	.03	.09	.21	.21	.22	.15	.09	.05	.12
3	.09	.06	.03	.03	.09	.19	.20	.25	.15	.09	.03	.12
4	.09	.06	.03	.03	.09	.18	.18	.25	.15	.09	.03	.12
5	.09	.06	.03	.03	.09	.18	.18	.33	.15	.09	.03	.12
6	.09	.06	.03	.03	.09	.20	.18	.26	.12	.06	.03	.12
7	.09	.06	.03	.04	.09	.21	.18	.21	.12	.04	.03	.12
8	.09	.06	.03	.06	.09	.21	.18	.21	.12	.04	.03	.12
9	.09	.06	.03	.06	.12	.20	.15	.20	.12	.04	.03	.12
10	.09	.06	.03	.06	.12	.18	.15	.18	.12	17	.03	.12
11	.09	.06	.03	.06	.12	.20	.15	.16	.12	.96	.03	.53
12	.12	.06	.03	.07	.12	.21	.15	.16	.12	.13	.03	4.0
13	.12	.06	.03	.09	.12	.21	.15	.16	.12	.09	.03	6.4
14	.10	.06	.03	.09	.13	.21	.15	.16	.12	.06	.03	7.1
15	.09	.06	.03	.09	.18	.21	.15	.16	.12	.06	.03	10
16	.09	.06	.03	.09	.18	.19	.15	.16	.15	.06	.03	16
17	.09	.06	.03	.09	.22	.18	.15	.16	.15	.06	.03	12
18	.09	.06	.03	.07	.29	.31	.15	.16	.13	.06	.55	9.2
19	.09	.16	.03	.06	.21	.30	.15	.16	.12	.06	2.1	9.3
20	.09	.10	.03	.06	.18	.30	.15	.16	.13	.06	.15	8.0
21	.09	.09	.03	.06	.18	.31	.17	.16	.12	.06	.09	7.7
22	.09	.09	.03	.06	.18	.32	.21	.16	.12	.06	21	6.3
23	.09	.07	.03	.06	.18	.29	.21	.16	.12	.06	18	2.8
24	.09	.06	.03	.06	.18	.29	.21	.16	.12	.06	.99	6.9
25	.09	.06	.03	.06	.20	.33	.21	.15	.12	.06	.26	8.6
26	.09	.06	.03	.06	.20	.47	.21	.15	.09	.06	.20	13
27	.09	.06	.03	.06	.18	.44	.21	.15	.09	.06	.17	15
28	.06	.06	.03	.08	.18	.42	.21	.15	.09	.06	.15	14
29	.06	.06	.03	.12	.18	.27	.21	.15	.09	.06	.15	19
30	.06	.06	.03	.10	---	.24	.21	.15	.09	.06	.14	29
31	.06	---	.03	.09	---	.21	---	.15	---	.06	.12	---
TOTAL	2.74	2.01	.97	1.98	4.37	7.87	5.38	5.61	3.68	19.89	44.63	206.03
MEAN	.088	.067	.031	.064	.15	.25	.18	.18	.12	.64	1.44	6.87
MAX	.12	.16	.06	.12	.29	.47	.21	.33	.15	17	21	29
MIN	.06	.06	.03	.03	.09	.18	.15	.15	.09	.04	.03	.12
AC-FT	5.4	4.0	1.9	3.9	8.7	16	11	11	7.3	39	89	409

CAL YR 1983 TOTAL 60.39 MEAN .17 MAX 12 MIN .03 AC-FT 120
WTR YR 1984 TOTAL 305.16 MEAN .83 MAX 29 MIN .03 AC-FT 605

07126300 PURGATOIRE RIVER NEAR THATCHER, CO

LOCATION.--Lat 37°21'30", long 103°53'44", in sec.10, T.31 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on right bank 250 ft downstream from county road bridge at gas line crossing, 1.2 mi downstream from Van Bremer Arroyo, and 18 mi southeast of Thatcher.

DRAINAGE AREA.--1,791 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,790 ft, from topographic map.

REMARKS.-- Records good. Diversions above station for irrigation of about 30,000 acres. Peak flows regulated to some extent by Trinidad Dam, 52 mi upstream, since January 1975.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources October 1979 to September 1982, and reviewed by Geological Survey.

AVERAGE DISCHARGE.--10 years (water years 1967-76), 37.9 ft^3/s; 27,460 acre-ft/yr, prior to completion of Trinidad Dam; 6 years (water years 1977-82), 77.2 ft^3/s; 66,150 acre-ft/yr: 8 years (water years 1977-84), 88.8 ft^3/s; 64,340 acre-ft/yr, subsequent to completion of Trinidad Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft^3/s, July 3, 1981, gage height, 22.0 ft, from rating curve extended above 2,100 ft^3/s; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of July 22, 1954, and May 19, 1955, reached stages of 26.7 and 25.2 ft, respectively, from floodmarks. Flood of June 8, 1965, reached a stage of 23.5 ft, from floodmarks, discharge, 47,700 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,830 ft^3/s, at 2230 Aug. 22, gage height, 7.64 ft; minimum daily, 11 ft^3/s, July 7,9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	36	41	33	54	38	81	134	34	20	54	38
2	57	36	46	32	57	40	93	156	42	20	71	43
3	58	36	54	30	54	40	84	153	68	20	90	63
4	63	36	52	31	48	40	72	162	135	13	64	51
5	63	35	47	34	49	42	63	213	70	12	50	33
6	63	35	40	36	44	39	131	417	52	12	54	27
7	63	35	44	38	47	38	313	276	46	11	52	22
8	65	34	49	39	44	38	452	196	40	12	50	19
9	70	35	52	40	40	38	438	152	34	11	75	21
10	71	36	48	42	42	37	363	147	29	33	48	22
11	69	36	46	41	40	36	454	158	24	47	57	22
12	75	36	49	43	39	35	350	178	27	135	45	30
13	74	34	45	42	40	36	256	181	182	57	41	38
14	71	34	43	37	40	32	215	154	409	47	57	37
15	67	33	45	36	43	31	174	151	135	38	33	39
16	76	31	38	28	42	37	136	142	147	36	16	57
17	59	36	24	26	41	38	142	169	87	73	12	71
18	51	40	24	26	44	43	172	140	58	43	12	56
19	50	50	25	22	41	53	236	118	193	45	135	46
20	48	48	26	22	40	54	367	105	106	36	131	42
21	47	54	22	29	43	69	240	88	54	31	267	40
22	44	52	21	32	46	96	149	73	39	29	362	51
23	42	46	21	36	56	109	128	59	38	31	613	46
24	43	40	21	36	50	75	152	53	38	36	107	47
25	45	40	24	36	43	102	236	47	36	40	83	50
26	44	42	30	36	43	141	258	40	34	32	89	48
27	43	36	28	37	43	157	178	36	36	20	54	50
28	39	26	26	36	39	115	124	36	41	27	42	51
29	37	33	26	39	37	107	116	34	26	34	31	71
30	36	39	30	41	---	108	133	34	20	38	26	90
31	36	---	34	50	---	103	---	34	---	64	28	---
TOTAL	1730	1140	1121	1086	1289	1967	6306	4036	2280	1103	2849	1321
MEAN	55.8	38.0	36.2	35.0	44.4	63.5	210	130	76.0	35.6	91.9	44.0
MAX	76	54	54	50	57	157	454	417	409	135	613	90
MIN	36	26	21	22	37	31	63	34	20	11	12	19
AC-FT	3430	2260	2220	2150	2560	3900	12510	8010	4520	2190	5650	2620

CAL YR 1983 TOTAL 64321 MEAN 176 MAX 3600 MIN 20 AC-FT 127600
WTR YR 1984 TOTAL 26228 MEAN 71.7 MAX 613 MIN 11 AC-FT 52020

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1982 to current year.
WATER TEMPERATURE: December 1982 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1982. Pumping sediment sampler since May 1983.

REMARKS.--Water-quality monitor record is considered fair. There was no record from June 26, 1983 to Oct. 28, 1983. Sediment discharge record is considered fair. There is no record for winter months due to freezing of sampler. Previously unpublished daily sediment and water-quality monitor records for 1983 water year are included in this report. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR 1983 WATER YEAR.--
SPECIFIC CONDUCTANCE: Not determined.
WATER TEMPERATURE: Not determined.
SEDIMENT CONCENTRATION: Maximum daily, 14,900 mg/l June 6,1983; minimum daily, 25 mg/l July 23-24, 1983.
SEDIMENT LOADS: Maximum daily, 250,000 tons June 6, 1983; minimum daily, 1.7 tons July 23-24, 1983.

EXTREMES FOR 1984 WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,810 micromhos Dec. 21, 1983; minimum daily 530 micromhos Apr. 8.
WATER TEMPERATURE: Maximum, 31.0° C Aug. 15,1984; minimum, 0.0° C on many days during winter months.
SEDIMENT CONCENTRATION: Maximum daily, 13700 mg/l June 14, 1984; minimum daily, 20 mg/l July 1-3, 1984.
SEDIMENT LOAD: Maximum daily, 30,200 tons Aug. 23, 1984; minimum daily, 0.74 tons July 7,1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV									
02...	1645	36	3210	3160	8.2	13.5	8.4	1800	340
JAN									
13...	1200	43	3660	3520	--	.0	--	1700	310
APR									
18...	1520	222	1490	1520	--	12.0	--	700	150
JUN									
05...	1600	63	2010	2010	7.9	16.5	7.7	950	200
JUL									
10...	1130	19	2840	3030	8.4	23.5	7.9	1300	230
AUG									
19...	1925	196	2600	2660	--	--	--	1400	270
22...	1245	152	--	1850	--	--	--	830	180
22...	1540	122	1780	1850	--	--	--	830	180

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV									
02...	220	230	2	5.0	187	2000	39	.50	7.5
JAN									
13...	230	270	3	4.9	286	1900	40	.50	10
APR									
18...	78	100	2	3.7	195	670	17	.40	13
JUN									
05...	110	140	2	5.1	136	1000	--	.50	10
JUL									
10...	180	250	3	6.1	137	1700	36	.40	7.5
AUG									
19...	180	200	2	5.9	124	1600	27	.50	4.5
22...	92	120	2	5.8	161	920	10	.50	8.7
22...	92	120	2	5.9	159	930	11	.50	8.7

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV									
02...	3000	4.0	287	7	.10	<.010	<.01	90	20
JAN									
13...	2900	4.7	402	30	.56	.010	<.01	30	10
APR									
18...	1100	1.7	731	291	.68	<.010	--	26	9
JUN									
05...	--	2.4	294	--	.45	.030	--	110	<10
JUL									
10...	2500	3.9	147	24	<.10	<.010	<.01	40	10
AUG									
19...	2400	3.5	1370	--	<.10	.110	--	20	<10
22...	1400	2.1	636	5320	.25	<.010	<.01	30	<10
22...	1400	2.1	511	5200	.27	.010	<.01	4	<1

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
NOV							
02...	1	<10	4	160	4	30	20
JAN							
13...	4	10	7	310	<1	50	40
APR							
18...	<1	<10	13	8200	19	180	60
JUL							
10...	<1	<10	7	970	7	60	10
AUG							
19...	<1	<10	130	92000	58	1500	470
22...	<1	<10	160	120000	120	2500	540
22...	<1	20	160	110000	70	2200	480

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
JUL								
10...	<64	1.4	<31	2.3	<27	2.0	.1	12

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
27...	1740	42	17	1.9
NOV				
10...	1350	36	27	2.6
DEC				
07...	1525	48	49	6.3
JAN				
05...	1410	35	47	4.5
FEB				
17...	1030	44	49	5.8
MAR				
09...	1010	40	54	5.8
APR				
12...	1230	387	1710	1790
17...	1440	143	209	81
17...	1700	152	215	88
18...	1305	222	257	154
18...	1520	222	318	191
19...	1150	287	886	687
MAY				
04...	1510	162	302	132
22...	1420	68	89	16
JUN				
05...	1600	63	6610	1120
21...	1310	51	1260	175
27...	1250	32	88	7.6
JUL				
10...	1055	19	47	2.4
AUG				
15...	1150	30	193	16
19...	1735	184	2030	1010
22...	1315	144	5320	2070
22...	1500	128	5400	1870
SEP				
20...	1235	45	215	26

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	3570		---	2190	468	867			
2			---	3960		---	1630	485	829			
3			---	3660		3550	1810	509	812			
4			---	3420		3700	1690	548	784			
5			---	3550		3680	1710	577	785			
6			---	3550		3250	1940	597	769			
7			---	3470		3410	2320	609	769			
8			---	3350		3440	2360	630	700			
9			---	3230		3400	2370	630	691			
10			---	3220		3350	2270	603	667			
11			---	3350		3280	2100	590	675			
12			---	3480		3160	1540	607	681			
13			---	3560		2490	1320	630	680			
14			---	3560		2350	1410	670	665			
15			---	3460		2440	1710	728	627			
16			---	3470		2610	1810	784	620			
17			---	3450		2410	1520	785	683			
18			---	3440		2780	1320	787	751			
19			---	3390		2820	1210	811	905			
20			---	---		2840	997	872	898			
21			---	---		2920	754	940	817			
22			---	---		3060	660	949	690			
23			3490	---		3130	686	963	591			
24			3380	---		3230	625	1020	593			
25			3330	---		3290	568	1040	715			
26			3410	---		2960	503	1080	779			
27			3370	---		2490	476	1040	---			
28			3350	---		2470	453	1090	---			
29			3520	---		2700	451	952	---			
30			3540	---		2790	453	965	---			
31			3590	---		2870	---	912	---			
MEAN			3440	3480		3000	1360	770	732			

WTR YR 1983 MEAN 1860 MAX 3960 MIN 451

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1					---	---	.0	.0			---	---
2					---	---	.0	.0			---	---
3					---	---	.0	.0			10.0	8.5
4					---	---	.0	.0			10.5	8.0
5					---	---	.0	.0			9.5	6.0
6					---	---	.0	.0			8.0	5.5
7					---	---	.0	.0			8.0	5.0
8					---	---	.0	.0			9.0	6.0
9					---	---	.0	.0			10.0	6.5
10					---	---	.0	.0			11.0	7.0
11					---	---	.0	.0			11.5	8.0
12					---	---	.0	.0			11.5	9.0
13					---	---	.0	.0			12.0	9.0
14					---	---	.0	.0			11.0	9.5
15					---	---	.0	.0			10.0	6.0
16					---	---	.0	.0			5.5	4.5
17					---	---	.0	.0			5.0	3.5
18					---	---	.0	.0			4.5	3.0
19					---	---	.0	.0			4.0	2.5
20					---	---	---	---			4.5	1.5
21					---	---	---	---			6.0	1.5
22					---	---	---	---			6.0	3.5
23					3.5	1.5	---	---			8.5	4.0
24					2.5	.0	---	---			10.0	6.0
25					.0	.0	---	---			8.5	6.5
26					.5	.0	---	---			7.5	4.5
27					.0	.0	---	---			7.0	3.5
28					.0	.0	---	---			7.0	4.0
29					.0	.0	---	---			9.0	5.5
30					.0	.0	---	---			10.5	6.0
31					.0	.0	---	---			12.5	8.0
MONTH					3.5	.0	.0	.0			12.5	1.5

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07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	7.0	11.5	10.0	14.5	10.5						
2	9.0	5.0	11.0	9.0	17.0	15.0						
3	9.0	6.0	11.0	8.0	17.5	15.5						
4	6.5	2.5	15.0	11.0	18.5	16.0						
5	4.0	1.5	16.0	12.5	17.0	14.5						
6	6.0	1.5	14.5	12.5	14.5	10.5						
7	7.0	3.0	14.5	11.0	15.5	14.0						
8	8.5	4.5	16.0	11.5	16.5	14.5						
9	10.0	6.0	15.0	13.0	15.5	14.0						
10	11.5	7.5	16.0	13.0	16.0	14.0						
11	12.0	9.0	17.0	14.0	19.0	16.0						
12	11.0	8.5	16.0	13.5	19.5	17.5						
13	8.5	5.5	13.5	10.0	17.5	14.5						
14	8.5	4.5	10.0	8.5	15.0	13.5						
15	10.0	6.0	12.0	7.5	17.0	14.5						
16	11.5	7.5	15.0	9.5	19.5	16.0						
17	13.5	8.5	13.5	10.5	21.0	18.0						
18	13.5	9.0	13.5	9.0	23.0	18.5						
19	14.0	10.0	15.0	10.5	23.0	19.5						
20	14.5	10.5	14.0	12.0	22.5	19.5						
21	13.0	10.5	14.0	10.5	22.0	18.5						
22	11.0	7.0	14.5	12.0	21.5	19.0						
23	9.5	7.0	18.0	13.0	20.5	18.5						
24	13.0	9.0	20.5	15.5	21.5	18.5						
25	13.0	10.5	21.0	17.5	21.5	19.0						
26	12.0	9.5	22.5	17.5	21.0	18.5						
27	11.0	10.0	21.0	18.0	---	---						
28	11.5	10.0	20.0	17.0	---	---						
29	13.0	10.5	19.0	16.0	---	---						
30	12.5	11.0	16.5	11.5	---	---						
31	---	---	11.5	10.0	---	---						
MONTH	14.5	1.5	22.5	7.5	23.0	10.5						
YEAR	23.0	.0										

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3210	3270	3430	2560	3610	1460	1150	2380	2750	2300	2100
2	---	3220	3200	3430	2530	3620	1760	1230	2380	2600	2210	2220
3	---	3230	3150	3320	2590	3620	1660	1270	2490	2720	2030	2200
4	---	3230	3190	3260	2670	3610	1610	1270	1930	2760	1900	2040
5	---	3240	3180	3290	2820	3580	1840	1230	1960	2800	1940	2040
6	---	3240	3200	3410	2870	3540	2020	1160	1900	2840	2040	2030
7	---	3250	3400	3390	2950	3490	810	1060	2080	2830	2040	2020
8	---	3260	3640	3320	3020	3490	530	1010	2240	2750	1680	2080
9	---	3280	3470	3330	3090	3360	574	1020	2430	2790	1920	2110
10	---	3310	3330	3390	3170	3250	730	1040	2480	2690	1750	2140
11	---	3310	3350	3440	3220	3260	933	1120	2550	2710	1850	2210
12	---	3310	3400	3500	3270	3190	1060	1130	2700	2530	2150	2240
13	---	3320	3530	3470	3310	3080	1090	1090	2570	1940	2110	2240
14	---	3330	3490	3340	3410	3010	1140	993	1970	1540	2130	2210
15	---	3360	3360	3360	3400	3010	1230	979	1740	1990	1910	2140
16	---	3370	3400	3390	3410	2990	1290	992	1820	2300	2130	2080
17	---	3370	3510	3440	3530	2950	1430	996	2080	2370	2140	2110
18	---	3340	3540	3530	3420	2500	1560	985	2080	2400	2250	2160
19	---	3220	3610	3570	3290	2160	1400	1020	2230	2300	1710	2030
20	---	2950	3760	3580	3330	1960	1180	1100	2150	2390	1480	1980
21	---	2910	3810	3590	3470	2220	1090	1300	2150	2330	1460	2030
22	---	3180	3690	3670	3490	2550	1080	1400	2300	2270	1480	2160
23	---	3140	3690	3510	3530	2140	1080	1590	2410	2300	1310	2200
24	---	3280	3660	3350	3610	1480	1100	1630	2420	2330	1530	2040
25	---	3260	3690	3200	3740	1860	1120	1820	2430	2270	1650	1950
26	---	3210	3490	3120	3730	1890	1040	1950	2010	2190	1660	1910
27	---	3200	3300	3090	3670	1220	992	1880	1890	2170	1720	1810
28	2970	3180	3340	3070	3630	1320	1000	1960	2470	2180	1820	1900
29	2990	3240	3300	3000	3600	1610	1020	2120	2060	2290	1910	2020
30	3020	3350	3290	2780	---	2040	1080	2270	2630	2260	1940	1910
31	3150	---	3320	2590	---	1790	---	2370	---	2240	1990	---
MEAN	3030	3240	3440	3330	3250	2690	1200	1360	2230	2410	1880	2080

WTR YR 1984 MEAN 2470 MAX 3810 MIN 530

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	13.5	10.5	.5	.5	.5	.5	.5	.5	5.0	2.5
2	---	---	12.5	10.5	.5	.5	.5	.5	.5	.5	7.0	3.0
3	---	---	13.0	10.5	.5	.5	.5	.5	.5	.5	7.5	4.5
4	---	---	13.0	10.5	.5	.5	.5	.5	.5	.5	5.5	3.5
5	---	---	13.5	11.0	.5	.0	.5	.5	.5	.0	5.0	2.0
6	---	---	13.5	11.5	.5	.0	.5	.5	.5	.5	4.5	1.5
7	---	---	13.0	10.5	.5	.5	.5	.5	.5	.5	6.0	1.5
8	---	---	12.0	9.5	.5	.0	.5	.5	.5	.5	7.0	3.0
9	---	---	9.0	7.0	.5	.5	.5	.5	.5	.0	8.0	5.0
10	---	---	8.5	6.0	1.0	.5	.5	.5	1.0	.5	8.5	5.0
11	---	---	8.0	5.5	1.0	.5	.5	.5	.5	.0	8.0	6.0
12	---	---	9.0	6.5	1.5	.5	.5	.5	1.0	.0	9.0	5.5
13	---	---	9.5	6.5	1.5	.5	.5	.5	1.0	.0	10.0	6.5
14	---	---	9.0	7.0	1.5	.5	.5	.5	1.5	.0	10.0	7.0
15	---	---	7.5	5.0	1.0	.5	.5	.5	2.0	.5	11.0	8.0
16	---	---	7.5	5.0	1.0	.5	.5	.5	2.5	.5	10.0	8.0
17	---	---	7.5	5.5	.5	.5	.5	.5	3.0	.0	10.5	7.0
18	---	---	7.5	6.0	.5	.5	.5	.5	.5	.0	8.5	1.0
19	---	---	6.0	4.0	.5	.5	.5	.5	.5	.0	6.0	1.0
20	---	---	5.5	3.0	.5	.5	.5	.5	.5	.0	7.5	3.0
21	---	---	6.0	3.5	.5	.5	.5	.5	1.0	.0	9.0	4.5
22	---	---	4.5	3.5	.5	.5	.5	.5	2.5	.0	7.0	4.5
23	---	---	4.5	2.5	.5	.5	.5	.5	3.0	1.0	4.5	3.5
24	---	---	4.0	1.5	.5	.5	.5	.5	3.5	.5	7.0	2.5
25	---	---	5.0	2.5	.5	.5	.5	.5	5.0	1.5	8.0	5.0
26	---	---	4.0	.5	.5	.5	.5	.5	4.0	2.0	7.5	5.5
27	---	---	.5	.5	.5	.5	.5	.5	3.5	.5	6.0	4.5
28	12.5	11.0	.5	.5	.5	.5	.5	.5	4.0	1.0	6.5	3.0
29	12.0	9.5	.5	.5	.5	.5	.5	.5	5.0	1.0	8.5	4.5
30	12.0	9.0	.5	.5	.5	.5	.5	.5	---	---	7.5	5.5
31	13.0	10.0	---	---	.5	.5	.5	.5	---	---	7.0	4.0
MONTH	13.0	9.0	13.5	.5	1.5	.0	.5	.5	5.0	.0	11.0	1.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	4.5	13.0	10.5	22.0	19.0	26.5	23.5	24.5	21.5	23.0	21.0
2	6.5	5.0	12.5	11.0	22.0	18.0	27.5	23.5	26.5	22.0	23.5	20.5
3	7.0	3.5	14.0	10.0	21.0	17.0	27.0	23.5	26.0	22.0	23.5	19.5
4	9.0	4.0	13.0	11.5	20.5	17.0	26.5	23.5	26.5	22.0	24.0	19.0
5	11.5	6.0	12.5	10.5	18.5	16.5	26.5	23.5	26.5	22.5	24.5	19.5
6	12.5	8.5	13.0	11.0	18.0	15.0	26.0	22.5	25.5	22.0	23.5	18.5
7	10.5	8.0	11.5	9.5	20.0	15.5	25.0	23.0	24.0	23.0	22.0	17.5
8	9.5	7.5	12.0	7.5	21.0	16.5	25.0	22.0	26.5	23.0	22.5	18.0
9	10.5	8.0	15.0	10.0	22.5	17.0	26.5	23.5	27.0	22.0	23.5	18.5
10	11.0	8.5	16.5	12.5	22.0	18.0	27.0	22.5	25.5	22.0	23.5	18.5
11	10.5	8.5	17.0	14.0	22.5	18.0	25.5	20.5	27.5	22.0	23.0	19.5
12	11.0	8.0	18.5	14.5	23.5	18.5	25.0	21.5	27.5	22.5	23.5	19.5
13	11.5	8.0	18.5	15.0	22.0	9.5	27.0	21.0	28.5	23.0	24.5	20.5
14	10.5	8.0	18.0	15.5	18.5	9.0	27.0	22.5	28.5	23.5	22.5	18.0
15	10.5	7.5	18.0	15.5	23.0	18.5	27.5	23.0	31.0	23.5	18.0	16.5
16	12.0	7.5	16.5	14.5	23.0	20.0	27.0	22.5	28.5	24.5	20.5	16.0
17	13.5	9.0	15.0	14.0	23.5	19.0	26.0	22.5	28.0	23.0	21.5	18.0
18	12.5	11.0	16.0	13.0	23.0	20.5	27.0	22.0	28.5	24.0	22.0	17.5
19	12.5	10.0	17.5	13.5	21.5	19.5	27.5	22.0	27.0	22.0	22.0	17.5
20	11.5	7.0	19.5	14.5	24.5	19.5	28.0	22.5	26.5	22.0	23.5	18.0
21	7.0	5.0	20.0	16.0	28.0	21.0	27.5	23.0	24.0	20.5	21.5	18.0
22	7.5	4.5	23.0	15.5	26.5	22.0	27.0	21.5	27.0	16.5	21.0	17.5
23	11.5	6.5	21.5	17.0	24.5	22.0	27.0	21.0	22.0	16.0	20.0	17.0
24	13.5	9.5	21.0	18.0	24.0	21.0	27.0	23.0	24.5	20.5	20.0	16.5
25	13.0	10.5	21.0	16.5	24.5	21.0	26.5	22.0	25.5	21.5	17.5	14.5
26	11.5	7.5	21.0	16.5	25.0	22.0	25.5	21.5	25.5	22.0	15.0	13.0
27	9.0	5.5	21.5	16.5	27.5	22.5	26.5	21.5	26.0	21.5	17.0	13.0
28	9.5	6.5	21.0	16.5	26.0	22.0	26.5	22.5	27.0	22.5	15.0	9.5
29	9.5	7.0	21.0	15.5	26.0	21.5	26.5	22.0	26.5	22.5	11.5	9.0
30	11.5	7.5	22.5	17.0	26.5	22.5	26.5	23.0	26.5	22.5	12.5	8.0
31	---	---	22.5	19.0	---	---	24.0	22.5	25.0	22.5	---	---
MONTH	13.5	3.5	23.0	7.5	28.0	9.0	28.0	20.5	31.0	16.0	24.5	8.0
YEAR	31.0	.0										

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
					MAY			JUNE	
1				727	3380	6630	600	---	4370
2				625	2670	4510	700	---	5860
3				578	1240	1940	630	2950	5020
4				452	800	976	555	2300	3450
5				416	684	768	442	1350	1610
6				412	812	903	3600	15000	146000
7				348	768	722	1480	---	48400
8				328	673	596	1110	---	12600
9				428	1340	1550	1140	5940	18300
10				477	1870	2410	872	---	8780
11				413	1270	1420	702	---	3010
12				359	660	640	618	---	2340
13				284	536	411	614	---	2350
14				288	338	263	898	---	8940
15				255	269	185	808	---	6040
16				264	345	246	608	---	3330
17				260	402	282	452	---	1710
18				188	265	135	333	---	908
19				133	173	62	293	---	728
20				131	194	69	324	---	1710
21				238	709	456	364	---	2230
22				178	641	308	547	---	5810
23				174	375	176	640	---	6080
24				141	221	84	501	---	3580
25				126	174	59	550	---	3120
26				119	---	51	600	---	3730
27				135	---	69	700	---	5670
28				185	---	150	800	---	6260
29				370	---	549	776	---	5450
30				500	---	2020	654	2050	3620
31				550	---	3270	---	---	---
TOTAL				10082	---	31910	22911	---	331006
		JULY			AUGUST			SEPTEMBER	
1	449	1110	1350	56	112	17	80	161	35
2	256	450	311	67	80	14	68	10.	19
3	183	295	146	77	90	19	63	59	10
4	128	235	81	363	5490	5380	64	57	9.8
5	118	188	60	260	3000	2110	64	48	8.3
6	150	180	73	175	1250	591	58	40	6.3
7	200	229	124	363	6150	6030	56	44	6.7
8	240	230	149	293	2400	1900	62	48	8.0
9	196	190	101	205	330	183	70	65	12
10	149	135	54	147	272	108	80	91	20
11	138	102	38	64	159	27	66	67	12
12	158	138	59	45	124	15	63	63	11
13	218	190	112	40	144	16	70	60	11
14	202	133	73	120	---	1430	68	44	8.1
15	156	145	61	97	---	327	69	43	8.0
16	101	93	25	60	560	91	70	48	9.1
17	66	61	11	52	266	37	69	49	9.1
18	48	42	5.4	82	361	80	66	39	6.9
19	49	37	4.9	58	395	62	65	39	6.8
20	42	31	3.5	59	520	83	55	40	5.9
21	37	32	3.2	39	142	15	69	41	7.6
22	38	30	3.1	42	90	10	82	50	11
23	38	25	2.6	43	147	17	74	34	6.8
24	38	25	2.6	42	92	10	64	44	7.6
25	55	60	8.9	43	55	6.4	70	42	7.9
26	61	65	11	71	---	316	70	35	6.6
27	54	44	6.4	117	953	301	66	---	7.1
28	48	31	4.0	105	360	102	69	---	7.5
29	54	43	6.3	68	162	30	72	---	8.2
30	48	34	4.4	67	135	24	68	45	8.3
31	56	59	8.9	79	---	38	---	---	---
TOTAL	3774	---	2903.2	3399	---	19389.4	2030	---	301.6
YEAR	64230		385510.2						

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	61	---	5.3	36	---	---	41		
2	57	30	4.6	36	---	---	46		
3	58	---	4.5	36	---	---	54		
4	63	---	4.9	36	---	---	52		
5	63	---	6.3	35	---	---	47		
6	63	---	6.1	35	---	---	40		
7	63	35	6.0	35	---	---	44		
8	65	---	6.1	34	---	---	49		
9	70	---	5.7	35	---	---	52		
10	71	---	4.6	36	27	2.6	48		
11	69	21	3.9	36	---	---	46		
12	75	44	8.9	36	---	---	49		
13	74	53	11	34	---	---	45		
14	71	---	6.7	34	---	---	43		
15	67	---	5.4	33	---	---	45		
16	76	37	7.6	31	---	---	38		
17	59	37	5.9	36	---	---	24		
18	51	28	3.9	40	---	---	24		
19	50	21	2.8	50	---	---	25		
20	48	35	4.5	48	---	---	26		
21	47	---	5.1	54	---	---	22		
22	44	58	6.9	52	---	---	21		
23	42	37	4.2	46	---	---	21		
24	43	26	3.0	40	---	---	21		
25	45	39	4.7	40	---	---	24		
26	44	29	3.4	42	---	---	30		
27	43	29	3.4	36	---	---	28		
28	39	---	2.9	26	---	---	26		
29	37	---	2.8	33	---	---	26		
30	36	---	2.7	39	---	---	30		
31	36	---	2.3	---	---	---	34		
TOTAL	1730	---	156.1	1140	---	2.6	1121		
		JANUARY			FEBRUARY			MARCH	
1	33			54			38	---	4.9
2	32			57			40	---	5.1
3	30			54			40	---	5.3
4	31			48			40	---	5.4
5	34			49			42	---	5.9
6	36			44			39	---	5.7
7	38			47			38	---	5.5
8	39			44			38	---	5.5
9	40			40			38	54	5.5
10	42			42			37	---	5.3
11	41			40			36	---	5.1
12	43			39			35	---	4.6
13	42			40			36	---	4.7
14	37			40			32	---	4.3
15	36			43			31	---	4.6
16	28			42			37	---	7.4
17	26			41			38	---	8.2
18	26			44			43	---	15
19	22			41			53	---	33
20	22			40			54	---	26
21	29			43			69	---	41
22	32			46			96	---	73
23	36			56			109	---	91
24	36			50			75	---	51
25	36			43			102	---	113
26	36			43			141	---	206
27	37			43			157	---	220
28	36			39			115	---	106
29	39			37			107	---	116
30	41			---			108	---	125
31	50			---			103	---	114
TOTAL	1086			1289			1967	---	1423.0

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	81	---	61	134	233	87	34	90	8.3
2	93	---	73	156	292	124	42	---	12
3	84	---	59	153	320	133	68	---	153
4	72	---	43	162	369	168	135	---	1080
5	63	---	29	213	1460	1240	70	---	301
6	131	---	280	417	5430	6230	52	---	136
7	313	---	1060	276	3030	2290	46	---	72
8	452	---	2010	196	1180	624	40	275	30
9	438	---	1960	152	409	169	34	---	20
10	363	---	1500	147	322	132	29	---	13
11	454	---	2220	158	342	150	24	---	5.8
12	350	1470	1410	178	546	276	27	---	8.1
13	256	---	353	181	714	353	182	---	14200
14	215	---	232	154	670	279	409	---	18200
15	174	---	146	151	536	222	135	---	614
16	136	---	95	142	569	220	147	---	3380
17	142	176	68	169	---	310	87	---	258
18	172	200	101	140	---	193	58	---	63
19	236	469	328	118	---	116	193	---	7070
20	367	---	1220	105	---	68	106	---	1370
21	240	---	538	88	---	40	54	1390	203
22	149	---	270	73	102	20	39	540	57
23	128	---	214	59	119	19	38	290	30
24	152	---	385	53	105	15	38	190	19
25	236	---	801	47	72	9.1	36	145	14
26	258	1180	862	40	26	2.8	34	95	8.7
27	178	1060	517	36	27	2.6	36	286	57
28	124	510	171	36	26	2.5	41	---	95
29	116	230	72	34	35	3.2	26	---	9.5
30	133	164	59	34	20	1.8	20	---	4.9
31	---	---	---	34	25	2.3	---	---	---
TOTAL	6306	---	17137	4036	---	13502.3	2280	---	47492.3
		JULY			AUGUST			SEPTEMBER	
1	20	---	3.8	54	1200	178	38	210	22
2	20	---	3.2	71	865	170	43	255	30
3	20	---	2.4	90	---	296	63	276	54
4	13	---	1.3	64	---	73	51	330	45
5	12	---	1.0	50	---	54	33	---	23
6	12	---	.87	54	---	114	27	320	23
7	11	---	.74	52	650	91	22	310	18
8	12	---	.97	50	320	43	19	---	9.7
9	11	---	.83	75	467	105	21	110	6.2
10	33	805	193	48	460	60	22	---	5.9
11	47	473	64	57	491	79	22	130	7.7
12	135	3240	1480	45	220	27	30	111	9.1
13	57	1870	306	41	234	27	38	---	11
14	47	650	82	57	205	33	37	---	8.0
15	38	335	34	33	175	16	39	65	6.8
16	36	295	29	16	85	3.7	57	150	23
17	73	1240	364	12	---	1.9	71	156	31
18	43	---	60	12	---	1.9	56	215	33
19	45	---	50	135	7240	3190	46	---	25
20	36	---	31	131	5520	2040	42	200	23
21	31	---	20	267	12300	12200	40	120	13
22	29	260	20	362	10600	22200	51	196	29
23	31	210	18	613	12000	30200	46	135	17
24	36	175	17	107	---	955	47	241	31
25	40	210	23	83	---	464	50	150	20
26	32	231	20	89	---	734	48	135	17
27	20	175	9.5	54	---	73	50	80	11
28	27	165	12	42	---	17	51	80	11
29	34	150	14	31	---	7.1	71	150	29
30	38	177	20	26	---	6.3	90	240	58
31	64	1560	344	28	---	12	---	---	---
TOTAL	1103	---	3225.61	2849	---	73471.9	1321	---	650.4
YEAR	26228		157061.21						

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO.

LOCATION.--Lat 38°28'35", long 103°58'06", in SW¼SW¼ Sec.13, T.30 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on right bank, 0.3 mi southwest of mouth, 1.9 mi southwest of Rock Crossing.

DRAINAGE AREA.--4.66 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,108 ft, from topographic map.

REMARKS.--Records good for 1983 and 1984 water years. This stream flows as a result of storm events only.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120 ft³/s, Aug. 22, 1984, gage height, 6.85 ft; no flow most of the time.

EXTREMES FOR PERIOD MAY TO SEPTEMBER 1983.--Peak discharges above base of 3.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 13	1830	3.3	5.09	Aug. 19	1930	*3.8	5.19

No flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 18	2100	11	5.50	Aug. 22	1900	a*120	6.85

No flow most of time.
a-on the basis of slope-area measurement of peak flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.00	.00	.00	.00
2								---	.00	.00	.00	.00
3								---	.00	.00	.00	.00
4								---	.00	.00	.00	.00
5								---	.00	.00	.00	.00
6								.00	.00	.00	.00	.00
7								.00	.00	.00	.00	.00
8								.00	.00	.00	.00	.00
9								.00	.00	.00	.00	.00
10								.00	.00	.00	.00	.00
11								.00	.00	.00	.00	.00
12								.00	.00	.00	.00	.00
13								.00	.00	.00	.16	.00
14								.00	.00	.00	.01	.00
15								.00	.00	.00	.00	.00
16								.00	.00	.00	.00	.00
17								.00	.00	.00	.00	.00
18								.00	.00	.00	.00	.00
19								.00	.00	.00	.34	.00
20								.00	.00	.00	.02	.00
21								.00	.00	.00	.00	.00
22								.00	.00	.00	.00	.00
23								.00	.00	.00	.00	.00
24								.00	.00	.00	.00	.00
25								.00	.00	.00	.00	.00
26								.00	.00	.00	.00	.00
27								.00	.05	.00	.00	.00
28								.00	.02	.00	.00	.00
29								.00	.00	.00	.00	.00
30								.00	.00	.00	.00	.00
31								.00	---	.00	.00	---
TOTAL								---	.07	.00	.53	.00
MEAN								---	.002	.000	.017	.000
MAX								---	.05	.00	.34	.00
MIN								---	.00	.00	.00	.00
AC-FT								---	.1	.00	1.1	.00

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.13	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.20	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00

WTR YR 1984 TOTAL 6.13 MEAN .017 MAX 5.3 MIN .00 AC-FT 12

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTAION.--Automatic pumping sediment sampler since May 1983.

REMARKS.--Records ar fair for 1983 and 1984 water years with no flow most of time. Daily water-quality data for specific conductance and temperature will be published in a subsequent report. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR 1983 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 454 mg/L (estimated) Aug. 19; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 2.7 tons (estimated) Aug. 19; minimum daily, no flow most of time.

EXTREMES FOR 1984 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,070 mg/L, Aug. 22; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 87 tons Aug. 22; minimum daily, no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
AUG												
19...	0017	.35	205	215	--	89	30	3.4	1.8	.0	6.1	30
19...	0035	.30	--	--	12.5	--	--	--	--	--	--	--
19...	0124	E.10	250	261	12.5	110	37	4.5	2.1	.0	6.3	30

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG											
19...	61	1.6	.20	4.9	130	.18	.12	.41	.110	37	2
19...	--	--	--	--	--	--	--	--	--	--	--
19...	82	1.6	.30	4.9	160	.22	--	.42	.100	42	7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG					
19...	0017	.35	--	--	--
19...	0035	.30	3880	3.1	98
19...	0124	E.10	--	--	--

E ESTIMATED.

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07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1				---			.00		---
2				---			.00		---
3				---			.00		---
4				---			.00		---
5				---			.00		---
6				.00			.00		---
7				.00			.00		---
8				.00			.00		---
9				.00			.00		---
10				.00			.00		---
11				.00			.00		---
12				.00			.00		---
13				.00			.00		---
14				.00			.00		---
15				.00			.00		---
16				.00			.00		---
17				.00			.00		---
18				.00			.00		---
19				.00			.00		---
20				.00			.00		---
21				.00			.00		---
22				.00			.00		---
23				.00			.00		---
24				.00			.00		---
25				.00			.00		---
26				.00			.00		---
27				.00			.05		.28
28				.00			.02		.02
29				.00			.00		---
30				.00			.00		---
31				.00			---		
TOTAL				0.00			0.07		0.30
		JULY			AUGUST			SEPTEMBER	
1	.00			.00		---	.00		
2	.00			.00		---	.00		
3	.00			.00		---	.00		
4	.00			.00		---	.00		
5	.00			.00		---	.00		
6	.00			.00		---	.00		
7	.00			.00		---	.00		
8	.00			.00		---	.00		
9	.00			.00		---	.00		
10	.00			.00		---	.00		
11	.00			.00		---	.00		
12	.00			.00		---	.00		
13	.00			.16		1.1	.00		
14	.00			.01		.00	.00		
15	.00			.00		---	.00		
16	.00			.00		---	.00		
17	.00			.00		---	.00		
18	.00			.00		---	.00		
19	.00			.34		2.7	.00		
20	.00			.02		.04	.00		
21	.00			.00		---	.00		
22	.00			.00		---	.00		
23	.00			.00		---	.00		
24	.00			.00		---	.00		
25	.00			.00		---	.00		
26	.00			.00		---	.00		
27	.00			.00		---	.00		
28	.00			.00		---	.00		
29	.00			.00		---	.00		
30	.00			.00		---	.00		
31	.00			.00		---	---		
TOTAL	0.00			0.53		3.84	0.00		
YEAR	0.60		4.14						

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07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

BEST COPY AVAILABLE

07126320 BURKE ARROYO TRIBUTARY NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		
		JULY			AUGUST			SEPTEMBER	
1	.00			.00	---	---	.00		
2	.00			.00	---	---	.00		
3	.00			.00	---	---	.00		
4	.00			.00	---	---	.00		
5	.00			.00	---	---	.00		
6	.00			.00	---	---	.00		
7	.00			.00	---	---	.00		
8	.00			.00	---	---	.00		
9	.00			.00	---	---	.00		
10	.00			.00	---	---	.00		
11	.00			.00	---	---	.00		
12	.00			.00	---	---	.00		
13	.00			.00	---	---	.00		
14	.00			.00	---	---	.00		
15	.00			.00	---	---	.00		
16	.00			.00	---	---	.00		
17	.00			.00	---	---	.00		
18	.00			.71	575	8.3	.00		
19	.00			.03	477	.23	.00		
20	.00			.00	---	---	.00		
21	.00			.00	---	---	.00		
22	.00			5.3	1070	87	.00		
23	.00			.09	578	.33	.00		
24	.00			.00	---	---	.00		
25	.00			.00	---	---	.00		
26	.00			.00	---	---	.00		
27	.00			.00	---	---	.00		
28	.00			.00	---	---	.00		
29	.00			.00	---	---	.00		
30	.00			.00	---	---	.00		
31	.00			.00	---	---	---		
TOTAL	0.00			6.13	---	95.86	0.00		
YEAR	6.13		95.86						

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO

LOCATION.--Lat 37°25'26", long 103°55'09", in SE¼SE¼ sec.17, T.30 S., R.58 W., Las Animas County, Hydrologic Unit 11010010, on left bank 5 mi upstream from mouth, 1.6 mi southeast of Rock Crossing, and 13.5 mi southeast of Thatcher.

DRAINAGE AREA.--48.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,982 ft, from topographic map.

REMARKS.--Records good for 1983 and 1984 water years.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 761 ft^3/s, gage height, 7.94 ft; no flow most of the time.

EXTREMES FOR PERIOD MARCH TO SEPTEMBER 1983.--Peak discharges above base of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 22	0815	*24	4.31	June 5	(unknown)	14	4.14

No flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 19	0930	5.5	3.91	Aug. 21	2330	a*761	7.94

No flow most of time.
a-on the basis of slope-area measurement of peak flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	.00	.00	.00	.00	.00	.00
2						---	.00	.00	.00	.00	.00	.00
3						---	.00	.00	.00	.00	.00	.00
4						---	.00	.00	.00	.00	.00	.00
5						---	.00	.00	.83	.00	.00	.00
6						---	.00	.00	1.7	.00	.00	.00
7						---	.00	.00	.00	.00	.00	.00
8						---	.00	.00	.00	.00	.00	.00
9						---	.00	.00	.00	.00	.00	.00
10						---	.00	.00	.00	.00	.00	.00
11						---	.00	.00	.00	.00	.00	.00
12						---	.00	.00	.00	.00	.00	.00
13						---	.00	.00	.00	.00	.00	.00
14						---	.00	.00	.00	.00	.00	.00
15						---	.00	.00	.00	.00	.00	.00
16						---	.00	.00	.00	.00	.00	.00
17						---	.00	.00	.00	.00	.00	.00
18						.00	.00	.00	.00	.00	.00	.00
19						.00	.00	.00	.00	.00	.00	.00
20						.00	.00	.00	.00	.00	2.0	.00
21						.00	.04	.00	.00	.00	.01	.00
22						.00	6.0	.00	.00	.00	.00	.00
23						.00	3.4	.00	.00	.00	.00	.00
24						.00	.43	.00	.00	.00	.00	.00
25						.00	.01	.00	.00	.00	.00	.00
26						.00	.00	.00	.00	.00	.00	.00
27						.00	.00	.00	.00	.00	.06	.00
28						.00	.00	.00	.00	.00	.00	.00
29						.00	.00	.00	.00	.00	.00	.00
30						.00	.00	.00	.00	.00	.00	.00
31						.00	---	.00	---	.00	.00	---
TOTAL						---	9.88	.00	2.53	.00	2.07	.00
MEAN						---	.33	.000	.084	.000	.067	.000
MAX						---	6.0	.00	1.7	.00	2.0	.00
MIN						---	.00	.00	.00	.00	.00	.00
AC-FT						---	20	.00	5.0	.00	4.1	.00

BEST COPY AVAILABLE

07126325 TAYLOR ARROYO BELOW ROCK CROSSING, NEAR THATCHER, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	38	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.55	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	65.32	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.11	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	38	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	130	.00

WTR YR 1984 TOTAL 65.32 MEAN .18 MAX 38 MIN .00 AC-FT 130

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--March 1983 to current year.

PERIOD OF DAILY RECORD.--March 1983 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since Aug. 5, 1983.

REMARKS.--Records are fair for 1983 and 1984 water years with no flow most of time. Daily water-quality data for specific conductance and temperature will be published in a subquent report.

EXTREMES FOR 1983 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 226 mg/l (estimated) Aug. 20; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 1.8 tons (estimated) Aug. 22; minimum daily, no flow most of time.

EXTREMES FOR 1984 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,300 mg/L Aug. 22; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 2,400 tons Aug. 22; minimum daily, no flow most time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
JUN												
07...	1625	.03	1720	1730	24.5	900	250	68	61	.9	7.7	48
07...	1625	.03	--	--	24.5	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN											
07...	910	3.8	.60	4.6	1300	1.8	.11	.88	.020	130	19
07...	--	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
AUG												
19...	0256	E.01	140	156	21.0	57	19	2.4	3.6	.2	3.1	27
19...	1100	5.5	550	550	23.5	210	61	15	21	.6	8.1	48
19...	1110	5.2	--	--	23.5	--	--	--	--	--	--	--
19...	1215	4.4	920	933	23.5	410	120	28	36	.8	11	50
19...	1350	3.4	--	--	26.5	--	--	--	--	--	--	--
19...	1445	2.9	2100	2130	26.5	1100	320	80	92	1	18	57
19...	1540	2.8	--	--	28.0	--	--	--	--	--	--	--
20...	1015	.05	--	--	24.0	--	--	--	--	--	--	--
20...	1030	.08	2400	2450	24.0	1300	370	96	110	1	14	63
21...	2150	1.7	--	962	--	450	130	31	34	.7	5.6	32
22...	0100	220	--	1830	--	880	270	50	50	.8	11	42
22...	0130	220	--	1810	--	910	280	51	50	.8	11	44
22...	0240	76	--	1840	--	910	280	52	54	.8	11	45
23...	1000	4.6	--	--	18.5	--	--	--	--	--	--	--

BEST COPY AVAILABLE

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG											
19...	34	1.0	<.10	2.4	82	.11	--	.64	.070	44	7
19...	210	4.5	.20	5.0	350	.48	5.3	.64	.070	19	15
19...	--	--	--	--	--	--	--	--	--	--	--
19...	440	6.8	.30	5.4	680	.98	8.5	.93	.100	33	32
19...	--	--	--	--	--	--	--	--	--	--	--
19...	1200	7.4	.60	5.8	1800	2.6	15	2.6	.010	20	50
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	1500	6.6	.70	5.5	2100	3.2	.50	2.8	.010	30	40
21...	470	2.5	.30	3.6	700	.99	3.3	.83	.020	28	21
22...	990	4.0	.60	5.3	1400	1.9	835	1.4	.010	20	19
22...	980	3.5	.60	5.8	1400	2.1	903	1.3	.010	57	14
22...	1000	3.7	.60	6.1	1400	2.1	314	1.3	.010	76	9
23...	--	--	--	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN					
07...	1625	.03	--	--	--
JUN					
07...	1625	.03	34	.00	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG					
19...	0256	E.01	--	--	--
19...	1100	5.5	--	--	--
19...	1110	5.2	850	12	100
19...	1215	4.4	--	--	--
19...	1350	3.4	714	6.6	100
19...	1445	2.9	--	--	--
19...	1540	2.8	185	1.4	84
20...	1015	.05	18	.00	33
AUG					
20...	1030	.08	--	--	--
21...	2150	1.7	--	--	--
22...	0100	220	--	--	--
22...	0130	220	--	--	--
22...	0240	76	24400	5010	100
23...	1000	4.6	470	5.8	99

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1							---		
2							---		
3							---		
4							---		
5							---		
6							---		
7							---		
8							---		
9							---		
10							---		
11							---		
12							---		
13							---		
14							---		
15							---		
16							---		
17							---		
18							.00		
19							.00		
20							.00		
21							.00		
22							.00		
23							.00		
24							.00		
25							.00		
26							.00		
27							.00		
28							.00		
29							.00		
30							.00		
31							.00		
TOTAL							0.00		

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00		---	.00			.00		---
2	.00		---	.00			.00		---
3	.00		---	.00			.00		---
4	.00		---	.00			.00		---
5	.00		---	.00			.83		1.0
6	.00		---	.00			1.7		1.0
7	.00		---	.00			.00		---
8	.00		---	.00			.00		---
9	.00		---	.00			.00		---
10	.00		---	.00			.00		---
11	.00		---	.00			.00		---
12	.00		---	.00			.00		---
13	.00		---	.00			.00		---
14	.00		---	.00			.00		---
15	.00		---	.00			.00		---
16	.00		---	.00			.00		---
17	.00		---	.00			.00		---
18	.00		---	.00			.00		---
19	.00		---	.00			.00		---
20	.00		---	.00			.00		---
21	.04		.01	.00			.00		---
22	6.0		1.4	.00			.00		---
23	3.4		.22	.00			.00		---
24	.43		.01	.00			.00		---
25	.01		.00	.00			.00		---
26	.00		---	.00			.00		---
27	.00		---	.00			.00		---
28	.00		---	.00			.00		---
29	.00		---	.00			.00		---
30	.00		---	.00			.00		---
31	---			.00			---		
TOTAL	9.88		1.64	0.00			2.53		2.0

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00			.00		---	.00		
2	.00			.00		---	.00		
3	.00			.00		---	.00		
4	.00			.00		---	.00		
5	.00			.00		---	.00		
6	.00			.00		---	.00		
7	.00			.00		---	.00		
8	.00			.00		---	.00		
9	.00			.00		---	.00		
10	.00			.00		---	.00		
11	.00			.00		---	.00		
12	.00			.00		---	.00		
13	.00			.00		---	.00		
14	.00			.00		---	.00		
15	.00			.00		---	.00		
16	.00			.00		---	.00		
17	.00			.00		---	.00		
18	.00			.00		---	.00		
19	.00			.00		---	.00		
20	.00			2.0		1.8	.00		
21	.00			.01		.00	.00		
22	.00			.00		---	.00		
23	.00			.00		---	.00		
24	.00			.00		---	.00		
25	.00			.00		---	.00		
26	.00			.00		---	.00		
27	.00			.06		.06	.00		
28	.00			.00		---	.00		
29	.00			.00		---	.00		
30	.00			.00		---	.00		
31	.00			.00		---	---		
TOTAL	0.00			2.07		1.86	0.00		
YEAR	14.48		5.50						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00			.00	---	---	.00		
2	.00			.00	---	---	.00		
3	.00			.00	---	---	.00		
4	.00			.00	---	---	.00		
5	.00			.00	---	---	.00		
6	.00			.00	---	---	.00		
7	.00			.00	---	---	.00		
8	.00			.00	---	---	.00		
9	.00			.00	---	---	.00		
10	.00			.00	---	---	.00		
11	.00			.00	---	---	.00		
12	.00			.00	---	---	.00		
13	.00			.00	---	---	.00		
14	.00			.00	---	---	.00		
15	.00			.00	---	---	.00		
16	.00			.00	---	---	.00		
17	.00			.00	---	---	.00		
18	.00			.08	52	.09	.00		
19	.00			1.7	218	1.9	.00		
20	.00			.08	50	.01	.00		
21	.00			20	1070	1540	.00		
22	.00			38	15300	2440	.00		
23	.00			4.9	2440	35	.00		
24	.00			.55	251	.36	.00		
25	.00			.01	1	.00	.00		
26	.00			.00	---	---	.00		
27	.00			.00	---	---	.00		
28	.00			.00	---	---	.00		
29	.00			.00	---	---	.00		
30	.00			.00	---	---	.00		
31	.00			.00	---	---	---		
TOTAL	0.00			65.32	---	4017.36	0.00		
YEAR	65.32		4017.36						

07126470 CHACUACO CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.--Lat 37°32'38", long 103°37'54", in SE¼SE¼ Sec. 1, T. 28 S., R. 56 W., Las Animas County, Hydrologic Unit 11020010, at Red Rocks Ranch, 1.5 mi upstream of mouth, 3.3 mi upstream from Bent Canyon Creek, and 21 mi southeast of Timpas.

DRAINAGE AREA.--424 mi²

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,350 ft, from topographic map.

REMARKS.--Water year 1983, no flow for period. Water year 1984, records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 19, 1955, and June 17, 1965, reached discharges of 3,170 ft³/s, and 38,900 ft³/s, respectively, at a different site, from slope-area measurements of peak flows.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, Aug. 2, 1984, gage height, 9.16 ft; no flow most of the time.

EXTREMES FOR PERIOD MAY TO SEPTEMBER, 1983.--No flow for period.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 10	2115	714	7.05	Aug. 2	2100	*2,100	9.16
July 15	2030	934	7.49	Aug. 13	0500	76	4.82
Aug. 1	1900	184	5.50				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	103	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	29	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	51	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	---	.00	.00	.00	.00	106.00	162.50	.00
MEAN	.000	.000	.000	.000	---	.000	.000	.000	.000	3.42	5.24	.000
MAX	.00	.00	.00	.00	---	.00	.00	.00	.00	51	103	.00
MIN	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	---	.00	.00	.00	.00	210	322	.00

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07126470 CHACUACO CREEK NEAR MOUTH NEAR TIMPAS, CO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1983 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since June 1983.

REMARKS.--Records are fair. No flow for most of year. Daily specific conductance and water temperature will be published in subsequent report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 2,500 mg/l Aug. 13 1984; no flow most of time.
SEDIMENT LOADS: Maximum daily, 7,202 tons Aug. 2, 1984; no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIOS: Maximum daily, 2,500 mg/l Aug.13; no flow most of time.
SEDIMENT LOADS: Maximum daily, 7,020 tons Aug. 2; no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)
JUL											
11...	1030	6.8	850	7.7	27.0	410	140	14	22	.5	5.4

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JUL												
11...	71	390	3.1	.20	6.6	620	.87	12	.51	.010	11	38

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUL					AUG				
11...	1030	6.8	582	11	14...	1300	0.51	44	0.06

BE OPY AVAILABLE

07126470 CHACUACO CREEK NEAR MOUTH NEAR TIMPAS, CO--continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

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07126470 CHACUACO CREEK NEAR MOUTH NEAR TIMPAS, CO--continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	11	1580	290	.00		
2	.00	---	---	103	---	7020	.00		
3	.00	---	---	14	---	267	.00		
4	.00	---	---	.00	---	---	.00		
5	.00	---	---	.00	---	---	.00		
6	.00	---	---	.00	---	---	.00		
7	.00	---	---	.00	---	---	.00		
8	.00	---	---	.00	---	---	.00		
9	.00	---	---	.00	---	---	.00		
10	29	1890	1400	.00	---	---	.00		
11	12	1240	91	.00	---	---	.00		
12	.00	---	---	.00	---	---	.00		
13	.00	---	---	20	2500	299	.00		
14	.00	---	---	.50	44	.06	.00		
15	51	2480	1970	.00	---	---	.00		
16	14	1620	154	.00	---	---	.00		
17	.00	---	---	.00	---	---	.00		
18	.00	---	---	.00	---	---	.00		
19	.00	---	---	.00	---	---	.00		
20	.00	---	---	.00	---	---	.00		
21	.00	---	---	12	---	558	.00		
22	.00	---	---	2.0	---	26	.00		
23	.00	---	---	.00	---	---	.00		
24	.00	---	---	.00	---	---	.00		
25	.00	---	---	.00	---	---	.00		
26	.00	---	---	.00	---	---	.00		
27	.00	---	---	.00	---	---	.00		
28	.00	---	---	.00	---	---	.00		
29	.00	---	---	.00	---	---	.00		
30	.00	---	---	.00	---	---	.00		
31	.00	---	---	.00	---	---	---		
TOTAL	106.00	---	3615	162.50	---	8460.06	0.00		
YEAR	268.50		12075.06						

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.-- Lat 37°35'19", long 103°38'51", in SE¼SE¼ sec.23, T.28 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 0.5 mi upstream from mouth, 0.6 mi southwest of Rourke Ranch house, 0.9 mi upstream from Iron Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--56.2 mi^2

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,402 ft from topographic map.

REMARKS.--Records good. This stream flows only from storm events.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft^3/s Aug. 21, 1984, gageheight, 12.56 ft from floodmark, result of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR PERIOD MAY TO SEPTEMBER, 1983.--No flow for period.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	1930	683	a8.70	Aug. 22	2130	2,040	11.62
Aug. 1	1830	42	a4.67	Aug. 25	0030	240	6.68
Aug. 21	2100	*2,640	a12.56	Sept.14	0130	42	4.68

a From floodmarks.
No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.9
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	132	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	149	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	---	.00	.00	.00	.00	21.38	305.74	2.90
MEAN	.000	.000	.000	.000	---	.000	.000	.000	.000	.69	9.86	.097
MAX	.00	.00	.00	.00	---	.00	.00	.00	.00	21	149	2.9
MIN	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	---	.00	.00	.00	.00	42	606	5.8

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler since May 1983.

REMARKS.--Records are fair. No flow most of time. Daily specific conductance and water temperature will be published in subsequent report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily,48,700 mg/l July 15,1984; no flow most of time.
SEDIMENT LOADS: Maximum daily, 21,100 tons Aug. 22,1984; no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 48,700 mg/l July 15; no flow most of time.
SEDIMENT LOADS: Maximum daily, 21,100 tons Aug. 22; no flow most of time.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		APRIL			MAY			JUNE	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	---			.00			---		
TOTAL	0.00			0.00			0.00		

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07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	1.9	843	43	.00	---	---
2	.00	---	---	.54	308	2.7	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	2.9	1100	57
15	21	48700	2330	.00	---	---	.00	---	---
16	.38	200	1.1	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	132	1660	4640	.00	---	---
22	.00	---	---	149	---	21100	.00	---	---
23	.00	---	---	14	---	190	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	8.3	---	433	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	21.38	---	2331.1	305.74	---	26408.7	2.90	---	57
YEAR	330.02		28796.8						

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07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO

LOCATION.--Lat 37°37'10", long 103°35'32" in NE¼SE¼ sec.10, T.28 S., R.55 W., Las Animas County, Hydrologic Unit 11020010, at Rock Crossing, 2.1 mi upstream from Minnie Canyon, 2.4 mi downstream from Beaty Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--2,635 Mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,350 ft, from topographic map.

REMARKS.--Records for 1983 water year are considered poor except where gage height record was obtained July 22 to Aug. 12, which are good. Records are good for 1984 water year, except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 30,000 acres. Peak flows are regulated to some extent by Trinidad Dam, 92 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,290 ft^3/s Aug. 21, 1984, gageheight 12.60 ft, result of slope-area measurement of peak flow; minimum daily, 12 ft^3/s July 9, 1984.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER, 1983.--Maximum discharge, about 3,500 ft^3/s, June 6, time and gage height unknown; minimum daily, 40 ft^3/s, July 21.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,290 ft^3/s at 2200 Aug. 21, gage height 12.60 ft, from floodmark, result of slope-area measurement of peak flow; minimum daily, 12 ft^3/s July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									750	490	57	80
2									850	280	57	70
3									750	200	71	60
4									650	140	115	60
5									550	130	312	60
6									3500	165	201	55
7									1600	220	129	53
8									1100	260	338	50
9									1200	220	221	60
10									850	160	158	65
11									950	150	112	60
12									770	170	68	70
13									700	240	60	70
14									900	210	140	70
15									840	196	110	70
16									746	138	70	70
17									577	73	60	70
18									426	53	90	65
19									316	55	60	55
20									350	45	60	55
21									400	40	40	70
22									600	41	45	75
23									705	41	50	65
24									550	45	45	65
25									605	42	50	70
26									660	56	80	70
27									770	70	130	65
28									860	60	120	70
29									840	53	80	70
30									720	53	70	65
31									---	52	90	---
TOTAL									25085	4148	3289	1963
MEAN									836	134	106	65.4
MAX									3500	490	338	80
MIN									316	40	40	50
AC-FT									49760	8230	6520	3890

NOTE.--NO GAGE-HEIGHT RECORD JUNE 1 TO JULY 21, AUG. 13 TO SEPT. 30.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	39	35	42	45	39	90	141	34	23	132	28
2	60	39	40	45	42	38	90	147	30	20	118	32
3	60	38	45	46	35	40	80	164	36	18	116	38
4	62	38	50	42	40	42	70	158	61	17	82	53
5	62	38	45	40	35	42	60	171	115	16	54	52
6	59	38	45	45	35	41	120	320	66	15	45	40
7	57	38	50	47	36	40	300	307	52	13	50	28
8	57	38	50	46	37	39	340	240	41	13	45	27
9	60	38	45	46	35	39	340	178	38	12	46	23
10	66	38	47	46	34	39	300	147	33	14	66	21
11	68	38	47	45	34	39	300	147	28	99	44	21
12	68	38	44	45	34	35	345	149	25	44	47	25
13	70	38	49	45	36	35	285	171	22	116	87	30
14	71	38	46	43	38	35	226	168	276	53	39	41
15	68	36	42	40	40	33	208	136	208	112	43	33
16	68	36	39	40	42	30	174	141	98	138	38	32
17	73	37	35	35	41	32	145	138	128	38	25	47
18	66	36	35	35	40	40	149	152	68	60	17	60
19	57	50	36	30	37	45	183	130	61	42	14	49
20	54	50	35	30	35	50	270	110	165	39	85	41
21	53	50	38	35	35	60	319	99	80	38	384	38
22	50	53	34	35	38	80	208	89	53	30	568	34
23	49	53	31	40	40	100	147	74	38	26	961	44
24	46	52	27	44	40	80	138	62	33	25	241	41
25	46	47	25	45	44	80	154	53	34	25	177	40
26	47	45	31	44	47	100	235	49	32	27	87	44
27	47	43	35	44	46	150	237	41	31	26	95	44
28	46	40	36	44	44	150	158	36	31	20	62	46
29	44	35	34	40	41	105	134	35	29	24	46	52
30	40	35	38	38	---	105	123	34	28	30	38	65
31	39	---	41	40	---	95	---	34	---	43	30	---
TOTAL	1773	1232	1230	1282	1126	1878	5928	4021	1974	1216	3882	1169
MEAN	57.2	41.1	39.7	41.4	38.8	60.6	198	130	65.8	39.2	125	39.0
MAX	73	53	50	47	47	150	345	320	276	138	961	65
MIN	39	35	25	30	34	30	60	34	22	12	14	21
AC-FT	3520	2440	2440	2540	2230	3730	11760	7980	3920	2410	7700	2320

WTR YR 1984 TOTAL 26711 MEAN 73.0 MAX 961 MIN 12 AC-FT 52980

NOTE.--NO GAGE-HEIGHT RECORD MAR. 9 TO APR. 10.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

PERIOD OF RECORD.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1983 to current year.
WATER TEMPERATURE: July 1983 to current year.
SUSPENDED SEDIMENT: Aug. 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1983. Pumping sediment sampler since Aug. 1983.

REMARKS.--Water-quality monitor record is considered good. There was no record Dec. 16,1983 to Apr. 17, 1984. Sediment discharge record is poor for 1983 water year. Record was estimated Aug. 10 to Sept.30,1983. Sediment discharge record is fair for 1984 water year. There was no record Nov. 1 to Feb. 14 due to malfunctions and/or freezing of the sampler. Record was estimated Mar. 10 to Apr. 16.

EXTREMES FOR 1983 WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,330 micromhos Aug. 17, 1983; minimum daily, 1,010 micromhos Aug. 9, 1983.
WATER TEMPERATURE: Maximum , 34.5° C Aug. 13,14,16,1983; minimum 12.5°C Sept. 21, 1983.
SEDIMENT CONCENTRATION: Maximum daily, 7,340 mg/l Aug. 5, 1983; minimum daily, 47 mg/l Sept. 8, 1983.
SEDIMENT LOADS: Maximum daily, 7,110 tons Aug. 5,1983; minimum daily, 3.0 tons Sept. 29, 1983.

EXTREMES FOR 1984 WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,330 micromhos Dec. 13, 1983; minimum daily, 534 micromhos Aug. 24, 1984.
WATER TEMPERATURE: Maximum, 33.0°C Aug. 16,17,19, 1984; minimum, 1.0°C Dec. 15, 1983.
SEDIMENT CONCENTRATION: Maximum daily, 21,400 mg/l Aug. 22, 1984; minimum daily, 10 mg/l Oct. 25, 1983.
SEDIMENT LOADS: Maximum daily, 57,600 tons Aug. 23, 1984; minimum daily, 0.81 tons July 9, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
NOV							
02...	1315	38	2920	8.1	14.5	9.2	1600
JAN							
10...	1215	E43	3200	8.3	.5	--	1700
APR							
17...	1400	E134	1260	--	16.0	--	560
JUN							
06...	0945	66	2440	8.3	18.5	7.9	1200
JUL							
10...	1230	12	2200	8.4	26.0	7.4	1000
AUG							
20...	1630	125	2700	--	28.0	--	1400

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV									
02...	310	190	200	2	5.5	168	1700	28	.40
JAN									
10...	320	210	230	3	4.7	257	1800	35	.50
APR									
17...	120	63	81	2	3.3	160	540	17	.30
JUN									
06...	230	160	210	3	5.5	165	1300	31	<.10
JUL									
10...	210	120	190	3	5.5	119	1200	24	.50
AUG									
20...	260	180	200	2	5.9	122	1600	26	.50

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV								
02...	6.3	2500	3.5	261	<.10	<.010	60	20
JAN								
10...	11	2800	4.1	--	.66	.020	290	60
APR								
17...	15	940	1.3	--	.70	.010	60	10
JUN								
06...	6.6	2000	2.8	364	<.10	.030	10	10
JUL								
10...	5.9	1800	2.7	64	<.10	.010	30	10
AUG								
20...	2.5	2300	3.5	861	<.10	<.010	40	20

E ESTIMATED.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
06...	1310	62	21	3.5	--
NOV					
02...	1315	38	10	1.0	--
JAN					
08...	1520	44	39	4.6	--
10...	1215	E43	108	--	--
FEB					
15...	1210	39	43	4.5	--
APR					
10...	1620	293	3590	2840	--
17...	1400	E134	408	--	--
20...	1200	234	474	299	--
26...	1215	215	430	250	--
MAY					
03...	0920	17	194	8.9	--
JUN					
01...	0945	34	47	4.3	--
06...	0945	66	71	13	--
JUL					
19...	1530	36	43	4.2	--
AUG					
06...	1635	41	43	4.8	--
20...	1630	125	366	124	--
22...	1700	267	22000	15900	100
30...	1455	34	715	66	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	1930	1470
2										---	1980	1590
3										---	2040	2010
4										---	2010	1970
5										---	2020	1890
6										---	1360	1860
7										---	1060	1890
8										---	1230	1990
9										---	1010	2080
10										---	1090	2050
11										---	1070	2020
12										---	1120	2050
13										---	1300	1990
14										---	1320	1920
15										---	1160	1920
16										---	1800	1790
17										---	2330	1930
18										---	2230	1880
19										---	1860	1900
20										---	1820	2000
21										---	1250	2060
22										---	1680	2030
23										1660	2130	2040
24										1820	1760	2080
25										1950	1650	2070
26										2140	1770	2090
27										2160	1900	1870
28										2180	2200	1890
29										2120	2200	1940
30										2090	2290	2060
31										1980	1730	---
MEAN										2010	1690	1940

WTR YR 1983 MEAN 1840 MAX 2330 MIN 1010

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	2740	3260				---	1380	2170	2070	2180	2090
2	2030	2780	3210				---	1470	2250	2090	1630	2170
3	2010	2810	3140				---	1680	2200	2060	1100	1990
4	2000	2810	3150				---	1560	2350	1990	1740	---
5	2000	2830	3280				---	1350	2490	2070	2020	---
6	2010	2950	3310				---	1210	2480	2080	2260	---
7	2170	3010	3200				---	925	2060	798	1970	---
8	2290	3010	3100				---	748	2000	798	1930	---
9	2290	3010	3130				---	868	1810	813	1790	---
10	2220	3060	3090				---	1010	2180	1520	1960	---
11	2210	3090	3100				---	1200	2090	1810	2140	---
12	2250	3110	3230				---	1330	1200	1800	2120	---
13	2250	3110	3330				---	1320	1110	1800	2020	---
14	2120	3100	3280				---	1240	1990	1800	1600	---
15	2200	3120	3200				---	1080	990	1780	1120	---
16	2250	3160	---				---	990	2080	1700	2330	---
17	2200	3180	---				---	1100	1690	1520	2840	---
18	2320	3160	---				1360	1110	1250	1410	1840	---
19	2340	3070	---				1520	1090	1450	1640	1370	---
20	2320	3110	---				1420	1060	1740	2120	2430	---
21	2320	3190	---				939	1130	1800	2540	2180	---
22	2250	3210	---				750	1240	1870	2670	885	---
23	2290	3200	---				930	1300	1940	2880	742	---
24	2460	3150	---				1140	1400	1840	2930	534	---
25	2560	2930	---				1460	1470	1690	2680	1330	---
26	2620	2930	---				1510	1550	1770	2820	1670	---
27	2660	3170	---				993	1640	1720	2820	1990	---
28	2720	3190	---				972	1800	1600	2610	2050	---
29	2750	3190	---				953	1860	1920	2310	2170	---
30	2740	3210	---				1170	1880	2170	2680	2140	---
31	2740	---	---				---	2030	---	2580	1910	---
MEAN	2310	3050	3200				1160	1320	1860	2040	1810	2080

WTR YR 1984 MEAN 2090 MAX 3330 MIN 534

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---	31.5	23.5	31.5	23.5
2							---	---	32.0	23.0	31.0	23.5
3							---	---	32.5	24.0	31.0	24.5
4							---	---	32.0	25.0	30.5	23.0
5							---	---	29.0	25.0	30.0	22.0
6							---	---	29.5	24.0	27.5	21.5
7							---	---	30.5	24.5	28.0	21.0
8							---	---	31.5	26.0	32.0	22.0
9							---	---	32.0	25.0	32.5	24.5
10							---	---	33.5	25.5	31.0	25.0
11							---	---	31.5	26.0	32.0	23.5
12							---	---	33.0	26.0	27.5	23.0
13							---	---	34.5	26.5	27.5	22.5
14							---	---	34.5	27.0	29.5	21.5
15							---	---	34.0	26.5	29.0	21.5
16							---	---	34.5	26.5	30.0	22.0
17							---	---	34.0	25.5	29.0	22.0
18							---	---	33.0	25.5	29.0	22.0
19							---	---	30.5	24.0	28.5	20.5
20							---	---	31.5	24.5	21.5	15.5
21							---	---	30.5	24.5	23.5	15.0
22							---	---	30.5	23.0	22.5	16.0
23							33.0	23.5	30.0	23.0	23.5	16.0
24							32.0	24.5	30.5	23.0	24.5	19.5
25							32.0	24.0	31.5	22.5	26.0	19.0
26							31.5	23.0	32.0	23.0	27.0	20.5
27							32.5	24.0	31.0	23.5	26.5	20.5
28							31.5	24.5	30.5	23.5	27.0	21.0
29							32.5	23.5	31.0	24.0	26.0	21.0
30							31.5	24.0	30.0	23.0	26.0	21.0
31							30.5	23.5	30.5	22.5	---	---
MONTH							33.0	23.0	34.5	22.5	32.5	15.0
YEAR	34.5	15.0										

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.5	17.5	17.0	11.0	4.0	3.5						
2	21.0	16.5	14.0	10.5	4.0	3.5						
3	22.0	14.5	16.5	10.0	4.0	3.5						
4	21.5	14.5	16.0	10.0	4.0	3.5						
5	21.5	14.0	17.0	11.0	3.5	3.5						
6	23.0	16.0	17.5	11.5	4.0	3.5						
7	23.5	16.5	16.0	11.0	4.0	3.5						
8	19.0	16.0	12.0	8.0	4.0	3.5						
9	22.0	14.5	11.0	7.0	5.5	3.5						
10	22.5	15.5	10.0	6.0	7.0	4.0						
11	19.0	16.0	10.5	6.5	7.0	4.0						
12	19.5	14.5	12.5	7.5	8.0	4.5						
13	19.0	12.5	13.5	8.0	5.5	4.5						
14	18.5	13.0	11.5	8.0	5.5	2.0						
15	18.0	12.0	10.0	6.0	2.0	1.0						
16	18.0	12.0	11.0	6.0	---	---						
17	18.5	12.5	11.0	6.5	---	---						
18	21.0	14.5	10.0	7.0	---	---						
19	18.0	13.5	9.5	6.5	---	---						
20	14.0	12.5	10.0	6.0	---	---						
21	18.0	12.0	10.5	7.0	---	---						
22	17.0	10.0	8.0	6.0	---	---						
23	17.5	11.0	8.5	5.5	---	---						
24	14.0	10.0	7.5	4.0	---	---						
25	15.5	8.5	9.5	5.5	---	---						
26	16.0	9.5	6.0	3.5	---	---						
27	16.0	10.0	3.5	3.5	---	---						
28	15.5	11.5	4.0	3.5	---	---						
29	16.5	8.5	4.0	3.5	---	---						
30	14.5	8.5	4.0	3.5	---	---						
31	15.5	9.0	---	---	---	---						
MONTH	24.5	8.5	17.5	3.5	8.0	1.0						

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	17.5	12.0	25.0	18.0	24.5	---	30.0	18.0	25.5	19.5
2	---	---	17.5	12.0	25.0	16.0	28.0	---	30.0	20.0	26.5	23.5
3	---	---	18.5	12.0	26.0	17.5	29.5	---	29.5	17.5	28.5	23.0
4	---	---	17.0	13.5	25.5	17.0	25.5	---	30.5	22.5	---	---
5	---	---	16.5	14.0	21.5	18.0	30.5	---	31.0	23.0	---	---
6	---	---	17.0	13.0	22.0	16.0	31.0	---	30.0	23.0	---	---
7	---	---	14.5	12.0	24.0	17.0	31.0	---	29.0	23.0	---	---
8	---	---	17.0	10.5	24.0	16.0	32.0	---	26.5	21.5	---	---
9	---	---	19.5	12.0	26.0	17.0	31.0	---	29.0	21.0	---	---
10	---	---	21.5	13.5	24.5	17.5	30.0	23.5	26.5	20.5	---	---
11	---	---	21.5	15.5	26.5	18.5	28.5	20.0	28.0	20.5	---	---
12	---	---	24.0	16.5	26.0	18.5	32.0	22.0	28.0	21.0	---	---
13	---	---	24.0	18.5	23.5	16.0	30.5	23.0	27.0	22.0	---	---
14	---	---	24.5	18.5	24.0	18.0	32.0	23.0	30.5	21.0	---	---
15	---	---	22.5	18.0	23.5	16.0	32.0	21.5	30.5	22.5	---	---
16	---	---	21.0	17.0	29.0	21.0	29.0	20.5	33.0	23.5	---	---
17	---	---	19.5	16.0	29.0	22.5	31.0	23.0	33.0	21.0	---	---
18	16.0	13.0	22.0	16.5	27.5	22.0	31.5	22.5	32.5	22.0	---	---
19	17.5	11.5	22.5	16.5	29.0	21.0	31.5	22.5	33.0	21.5	---	---
20	14.0	9.0	25.0	17.0	29.0	22.5	33.0	23.0	29.5	21.5	---	---
21	9.0	7.0	26.5	19.0	30.0	23.0	31.5	23.5	28.5	18.5	---	---
22	11.5	6.0	25.5	19.0	29.5	22.0	31.0	21.0	23.0	16.5	---	---
23	14.5	6.5	27.0	19.0	25.0	21.5	32.0	20.5	20.0	16.0	---	---
24	16.0	9.0	26.5	21.0	29.5	20.5	30.0	22.5	23.0	16.5	---	---
25	17.0	11.0	25.0	18.5	31.0	21.5	31.0	21.5	26.5	20.0	---	---
26	13.5	10.0	25.5	18.0	31.0	22.5	29.5	21.5	27.5	21.5	---	---
27	14.0	9.0	26.0	17.5	30.5	22.5	31.0	21.5	28.5	23.0	---	---
28	13.5	9.0	25.0	6.0	31.5	21.0	31.0	22.0	29.5	20.5	---	---
29	13.0	8.5	26.5	15.5	32.5	23.0	31.5	20.5	29.5	21.5	---	---
30	16.5	8.5	29.0	18.0	31.0	---	32.0	22.5	29.5	21.5	---	---
31	---	---	29.0	20.0	---	---	26.5	21.5	27.5	20.5	---	---
MONTH	17.5	6.0	29.0	6.0	32.5	16.0	33.0	20.0	33.0	16.0	28.5	19.5
YEAR	33.0	1.0										

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	490			57	---	7.7	80	---	22
2	280			57	---	15	70	---	15
3	200			71	---	38	60	---	11
4	140			115	1560	1460	60	---	9.7
5	130			308	7340	7110	60	---	9.7
6	165			201	2190	1190	55	---	8.2
7	220			129	1250	435	53	---	7.2
8	260			338	5350	5810	52	47	6.3
9	220			221	---	746	60	---	11
10	160			158	---	320	65	---	16
11	150			112	378	114	60	---	11
12	170			68	---	147	70	---	8.7
13	240			60	---	81	70	---	8.5
14	210			140	---	378	70	---	8.3
15	196			110	---	238	70	---	8.9
16	138			70	---	94	70	---	8.7
17	73			60	---	49	70	---	8.3
18	53			90	---	122	65	---	4.4
19	55			60	---	49	65	---	7.5
20	45			60	---	24	55	---	4.2
21	40			40	---	3.2	70	---	7.6
22	41			45	---	4.9	75	---	6.1
23	41			50	---	5.4	65	---	9.8
24	45			45	---	3.6	65	---	7.0
25	42			50	---	3.4	70	---	7.4
26	56			80	---	6.5	70	---	5.7
27	70			130	---	105	65	---	4.4
28	60			120	---	81	70	---	3.8
29	53			80	---	22	70	---	3.0
30	53			70	---	15	65	---	3.3
31	52			90	---	36	---	---	---
TOTAL	4148			3285	---	18713.7	1965	---	252.7
YEAR	34433		18966.4						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCTOBER			NOVEMBER			DECEMBER	
1	60	---	3.1	39	---	---	35	---	---
2	60	---	3.2	39	10	1.1	40	---	---
3	60	---	3.2	38	---	---	45	---	---
4	62	---	4.2	38	---	---	50	55	7.4
5	62	---	4.2	38	---	---	45	---	---
6	59	---	3.3	38	---	---	45	---	---
7	57	20	3.1	38	---	---	50	---	---
8	57	14	2.2	38	---	---	50	---	---
9	60	12	1.9	38	---	---	45	---	---
10	66	16	2.9	38	---	---	47	---	---
11	68	15	2.8	38	---	---	47	---	---
12	68	15	2.8	38	---	---	44	---	---
13	70	29	5.5	38	---	---	49	---	---
14	71	39	7.5	38	---	---	46	---	---
15	68	39	7.2	36	---	---	42	---	---
16	68	51	9.4	36	---	---	39	---	---
17	73	79	16	37	---	---	35	---	---
18	66	75	13	36	---	---	35	---	---
19	57	32	4.9	50	---	---	36	---	---
20	54	33	4.8	50	---	---	35	---	---
21	53	43	6.2	50	---	---	38	---	---
22	50	36	4.9	53	---	---	34	---	---
23	49	18	2.4	53	---	---	31	---	---
24	46	15	1.9	52	---	---	27	---	---
25	46	10	1.2	47	---	---	25	---	---
26	47	---	.90	45	---	---	31	---	---
27	47	---	.90	43	49	5.7	35	---	---
28	46	---	.85	40	43	4.6	36	---	---
29	44	---	.85	35	---	---	34	---	---
30	40	---	.85	35	---	---	38	---	---
31	39	---	.85	---	---	---	41	---	---

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07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	42	---	---	45	---	---	39	---	8.2
2	45	---	---	42	---	---	38	71	7.3
3	46	70	8.7	35	---	---	40	55	5.9
4	42	50	5.7	40	---	---	42	90	10
5	40	---	---	35	---	---	42	---	11
6	45	---	---	35	---	---	41	104	12
7	47	---	---	36	---	---	40	84	9.1
8	46	---	---	37	---	---	39	61	6.4
9	46	---	---	35	---	---	39	68	7.2
10	46	107	13	34	---	---	39	---	6.3
11	45	---	---	34	---	---	39	---	6.3
12	45	---	---	34	---	---	35	---	4.7
13	45	---	---	36	---	---	35	---	4.7
14	43	---	---	38	---	---	35	---	4.7
15	40	---	---	40	47	5.1	33	---	4.0
16	40	---	---	42	31	3.5	30	---	3.6
17	35	---	---	41	68	7.5	32	---	6.0
18	35	---	---	40	---	---	40	---	9.2
19	30	---	---	37	---	---	45	---	12
20	30	---	---	35	---	---	50	---	16
21	35	---	---	35	---	---	60	---	24
22	35	---	---	38	---	---	80	---	43
23	40	---	---	40	---	---	100	---	68
24	44	---	---	40	---	---	80	---	65
25	45	---	---	44	81	9.6	80	---	54
26	44	---	---	47	94	12	100	---	54
27	44	---	---	46	66	8.2	150	---	202
28	44	---	---	44	87	10	150	---	182
29	40	---	---	41	85	9.4	105	---	85
30	38	---	---	---	---	---	105	---	71
31	40	---	---	---	---	---	95	---	38
TOTAL	1282	---	27.4	1126	---	65.3	1878	---	1040.6
		APRIL			MAY			JUNE	
1	90	---	32	141	---	69	34	45	4.1
2	90	---	32	147	---	71	30	37	3.0
3	80	---	24	164	188	83	36	40	3.9
4	70	---	17	158	---	73	61	76	13
5	60	---	13	171	192	89	115	206	64
6	120	---	97	320	3630	3140	66	81	14
7	300	---	729	307	4030	3340	52	71	10
8	340	---	1380	240	2620	1700	41	71	7.9
9	340	---	918	178	983	472	38	57	5.8
10	300	---	729	147	---	119	33	47	4.2
11	300	---	729	147	---	79	28	37	2.8
12	345	---	1120	149	---	80	25	28	1.9
13	235	---	616	171	361	167	22	35	2.1
14	226	---	397	168	450	204	276	12200	9090
15	208	---	337	136	618	227	208	9160	5140
16	174	---	235	141	447	170	98	---	736
17	145	408	160	138	373	139	128	4900	1690
18	149	262	105	152	455	187	68	1540	283
19	183	343	169	130	368	129	61	1240	204
20	270	689	502	110	307	91	165	11300	5030
21	319	796	686	99	278	74	80	3050	659
22	208	---	225	89	185	44	53	3000	429
23	147	---	119	74	133	27	38	770	79
24	138	---	75	62	---	17	33	302	27
25	154	---	125	53	---	12	34	155	14
26	235	519	329	49	---	9.3	32	112	9.7
27	237	---	384	41	---	6.6	31	96	8.0
28	158	---	171	36	---	5.3	31	182	15
29	134	---	90	35	---	4.7	29	166	13
30	123	---	53	34	---	4.1	28	96	7.3
31	---	---	---	34	---	4.1	---	---	---
TOTAL	5928	---	10598	4021	---	10837.1	1974	---	23570.7

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07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMB3R	
1	23	100	6.2	132	---	2420	28	116	8.8
2	20	71	3.8	118	---	3110	32	99	8.6
3	18	61	3.0	116	---	2380	38	102	10
4	17	63	2.9	82	---	396	53	124	18
5	16	69	3.0	54	---	134	52	98	14
6	15	---	2.8	45	42	5.1	40	96	10
7	13	---	1.6	50	47	6.3	28	84	6.4
8	13	---	1.1	45	38	4.6	27	108	7.9
9	12	---	.81	46	34	4.2	23	80	5.0
10	14	---	1.1	66	53	9.4	21	---	3.4
11	99	3120	834	44	28	3.3	21	---	4.0
12	44	357	42	47	30	3.8	25	150	10
13	116	1570	492	87	334	78	30	198	16
14	53	98	14	39	80	8.4	41	256	28
15	112	1810	547	43	100	12	33	114	10
16	138	4730	1760	38	65	6.7	32	132	11
17	38	637	65	25	59	4.0	47	129	16
18	60	---	244	17	55	2.5	60	130	21
19	42	42	4.8	14	73	2.8	49	95	13
20	39	16	1.7	85	287	66	41	82	9.1
21	38	22	2.3	384	3550	3680	38	104	11
22	30	45	3.6	568	21400	32800	34	---	7.3
23	26	68	4.8	961	19300	50100	44	---	18
24	25	75	5.1	241	---	4140	41	122	14
25	25	42	2.8	177	---	2770	40	109	12
26	27	36	2.6	87	---	489	44	92	11
27	26	45	3.2	95	---	621	44	84	10
28	20	45	2.4	62	---	181	46	99	12
29	24	46	3.0	46	---	108	52	99	14
30	30	40	3.2	38	715	73	65	160	28
31	43	709	82	30	186	15	---	---	---
TOTAL	1216	---	4145.81	3882	---	103634.1	1169	---	367.5
YEAR	26711		154432.31						

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07126500 PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO

LOCATION.--Lat 37°42'53", long 103°30'38", in NW¼ sec.7, T.27 S., R.54 W., Otero County, Hydrologic Unit 11020010, on left bank at Ninemile Dam, 4 mi southwest of Higbee, and 5.5 mi upstream from Smith Canyon. Prior to Apr. 21, 1978 gage located 850 ft, upstream.

DRAINAGE AREA.--2,752 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1934(M), 1936(M), 1941-42(M), 1948-49(M). WSP 1731: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 4,240.59 ft, National Geodetic Vertical Datum of 1929, supplementary adjustment of 1960. See WSP 1711 or 1731 for history of changes prior to Dec. 6, 1956. Dec. 6, 1956 to Apr. 20, 1978, at site 850 ft, upstream.

REMARKS.--Records fair. Diversions for irrigation of about 32,000 acres above station. Discharge computed by combining discharge of river below Ninemile Dam and Ninemile canal. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1925-76), 94.5 ft^3/s; 68,470 acre-ft/yr, prior to completion of Trinidad Dam; 8 years (water years 1977-84), 85.0 ft^3/s; 61,580 acre-ft/yr, subsequent to completion of Trinidad Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s, estimated, June 18, 1965, gage height, 19.6ft, from floodmarks; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 ft^3/s at 0230 Aug. 22, gage height 5.42 ft, no flow, June 12, 13, July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	28	15	30	35	38	119	115	42	21	38	22
2	34	34	25	25	40	38	106	119	40	15	149	24
3	30	39	30	25	40	38	115	142	42	10	186	30
4	28	35	30	45	40	38	106	142	50	11	84	34
5	30	35	30	45	40	38	89	157	112	12	79	48
6	32	36	25	45	45	38	80	264	71	10	46	34
7	26	35	30	48	51	38	110	341	56	7.4	46	20
8	26	32	30	51	48	38	288	256	48	6.7	46	19
9	24	31	35	48	51	36	430	185	42	5.5	52	17
10	24	32	40	48	45	36	356	151	40	5.2	65	15
11	26	32	45	45	45	38	329	145	38	52	51	14
12	30	34	40	51	42	38	392	157	29	44	44	15
13	38	30	35	40	38	38	304	173	25	91	83	15
14	38	26	35	51	36	38	228	169	195	55	55	42
15	36	26	35	45	38	38	160	143	265	39	43	30
16	34	24	30	30	42	32	93	143	122	177	42	40
17	40	25	30	25	42	30	70	138	163	41	28	52
18	51	24	25	30	34	47	73	165	90	46	21	63
19	51	32	20	25	30	77	119	139	66	43	14	57
20	51	32	20	20	35	57	187	119	167	26	48	48
21	48	34	25	20	40	54	288	118	103	31	110	40
22	26	38	20	20	48	60	158	95	66	22	791	35
23	26	38	15	20	42	89	98	80	48	18	1090	43
24	24	43	15	35	48	115	98	66	41	17	287	45
25	21	46	15	30	54	89	129	56	43	19	188	36
26	21	45	15	30	51	106	202	56	42	21	92	44
27	22	30	20	30	51	158	222	55	28	22	47	43
28	22	20	20	25	51	168	151	44	28	21	63	42
29	21	15	20	20	48	141	111	47	30	14	43	45
30	19	15	20	25	---	119	102	45	26	18	32	54
31	15	---	25	30	---	119	---	44	---	32	26	---
TOTAL	954	946	815	1057	1250	2027	5313	4069	2158	952.8	3989	1066
MEAN	30.8	31.5	26.3	34.1	43.1	65.4	177	131	71.9	30.7	129	35.5
MAX	51	46	45	51	54	168	430	341	265	177	1090	63
MIN	15	15	15	20	30	30	70	44	25	5.2	14	14
AC-FT	1890	1880	1620	2100	2480	4020	10540	8070	4280	1890	7910	2110

CAL YR 1983 TOTAL 55426.0 MEAN 152 MAX 1520 MIN 15 AC-FT 109900
WTR YR 1984 TOTAL 24596.8 MEAN 67.2 MAX 1090 MIN 5.2 AC-FT 48790

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO JAN. 5.

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°02'02", long 103°12'00", in NE¼SW¼ sec.23, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020010, on right bank at downstream side of bridge on State Highway 101, 2.3 mi southeast of courthouse in Las Animas, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--3,318 mi², revised.

PERIOD OF RECORD.--Streamflow records, May to September 1889, July to October 1909 (gage heights and discharge measurements only), January 1922 to September 1931, July 1948 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Purgatoire Creek at Las Animas in 1889 and as Purgatory River near Las Animas in 1909. Water-quality data available, November 1963 to September 1965, October 1966 to July 1969.

REVISED RECORDS.--WSP 1241: 1927(M).

GAGE.--Water-stage recorder. Datum of gage is 3,878.04 ft, National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Oct. 1, 1955. Oct. 1, 1955, to July 11, 1966, at datum 3.00 ft, higher. Supplementary water-stage recorder at site 1.6 mi downstream at different datum July 12 to Nov. 17, 1966. Nov. 18, 1966 to May 4, 1982 at datum 3.1 ft, lower.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated to some extent since January 1975 by Trinidad Lake near Trinidad upstream. Diversions for irrigation of about 36,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years (water years 1923-31, 1949-76), 116 ft³/s; 84,040 acre-ft/yr, prior to completion of Trinidad Lake; 7 years (water years 1978-84), 80.8 ft³/s; 58,560 acre-ft/yr, subsequent to completion of Trinidad Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,000 ft³/s, May 20, 1955, gage height, 20.00 ft, different datum, from rating curve extended above 38,000 ft³/s; no flow at times in 1924-25, 1927, 1949, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1860 occurred Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s at 0630 Aug. 22, gage height, 7.97 ft; minimum daily, 3.0 ft³/s, July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	35	20	36	43	47	132	150	19	9.9	6.5	9.5
2	33	33	30	31	45	45	129	165	20	9.8	6.2	9.6
3	33	32	35	30	45	44	120	165	30	12	65	7.7
4	32	30	35	57	45	44	126	164	21	18	96	7.9
5	29	18	40	52	50	44	115	142	24	17	26	6.6
6	27	18	32	59	55	45	103	158	74	11	15	5.7
7	28	20	35	65	60	45	93	295	69	8.9	11	5.8
8	27	22	40	70	56	44	137	281	45	7.7	8.6	6.6
9	27	28	45	66	53	43	308	223	34	5.7	7.3	5.7
10	32	32	50	64	55	41	427	169	41	5.2	14	4.9
11	25	30	55	69	52	40	343	132	59	4.6	20	4.7
12	24	31	54	72	53	41	381	120	47	3.9	35	4.7
13	27	26	45	77	51	42	338	146	27	4.6	21	4.3
14	29	24	47	72	48	41	306	192	19	7.7	29	3.9
15	33	23	45	55	43	40	236	154	127	19	45	13
16	36	23	39	35	39	39	203	127	176	22	16	9.2
17	39	19	40	32	46	39	185	122	87	107	14	5.7
18	38	19	29	39	42	41	147	141	124	19	7.0	4.2
19	37	19	25	29	35	52	149	166	76	8.5	4.2	4.1
20	31	22	25	24	40	84	179	136	31	7.4	3.9	24
21	31	34	30	27	45	74	298	118	90	5.8	3.5	23
22	31	35	25	23	55	74	310	94	60	4.3	1180	17
23	32	36	20	24	57	84	225	82	33	6.2	971	7.9
24	32	39	20	40	48	113	179	69	23	5.7	669	10
25	32	45	20	37	51	123	150	52	17	4.2	159	7.8
26	31	50	20	36	57	104	167	53	22	3.0	102	12
27	29	36	22	36	55	116	241	41	17	4.0	39	16
28	30	24	25	34	49	149	248	37	18	9.3	31	11
29	32	19	22	27	48	168	190	22	12	12	25	15
30	32	20	25	32	---	139	161	17	10	4.6	13	21
31	32	---	32	36	---	129	---	22	---	4.4	12	---
TOTAL	965	842	1027	1386	1421	2174	6326	3956	1452	372.4	3655.2	288.5
MEAN	31.1	28.1	33.1	44.7	49.0	70.1	211	128	48.4	12.0	118	9.62
MAX	39	50	55	77	60	168	427	295	176	107	1180	24
MIN	24	18	20	23	35	39	93	17	10	3.0	3.5	3.9
AC-FT	1910	1670	2040	2750	2820	4310	12550	7850	2880	739	7250	572

CAL YR 1983 TOTAL 59211.5 MEAN 162 MAX 2100 MIN 6.5 AC-FT 117400
WTR YR 1984 TOTAL 23865.1 MEAN 65.2 MAX 1180 MIN 3.0 AC-FT 47340

07130000 JOHN MARTIN RESERVOIR AT CADDOA, CO

LOCATION.--Lat 38°04'05", long 102°56'13", in NE¼NW¼ sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, at dam on Arkansas River at Caddoa, 3.2 mi southeast of Hasty, and 58 mi upstream from Colorado-Kansas State line.

DRAINAGE AREA.--18,915 mi², of which 785 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1943 to current year. Monthend contents only prior to November 1943, published in WSP 1311.

GAGE.--Water-stage recorder for elevations above 3,784 ft, and nonrecording gage read once daily for those below. Datum of gage is 3,760.00 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Corps of Engineers); gage readings have been reduced to elevations NGVD.

REMARKS.--Records good. Reservoir is formed by concrete and earthfill dam. Storage began while dam was under construction prior to 1943, and record of contents began Jan. 1, 1943. Capacity (based on 1980 resurvey; new capacity table put into use Aug. 12, 1981), 615,500 acre-ft, at elevation 3,870.00 ft, top of spillway gates, of which 345,300 acre-ft between elevations 3,774.12 ft, elevation of no contents, and 3,851.00 ft, is for irrigation, and 270,200 acre-ft between elevations 3,851.00 ft, and 3,870.00 ft, is reserved for flood control. No dead storage. Figures given represent total contents.

COOPERATION.--Capacity tables furnished by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 429,600 acre-ft, Aug. 25, 1965, elevation, 3,856.16 ft; no contents at times many years.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 211,000 acre-ft, June 6, 7, elevation, 3,837.48 ft; minimum contents, 67,500 acre-ft, Oct. 31, elevation, 3,814.01 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

3,785.0	448	3,800.0	21,800	3,830.0	153,700
3,790.0	3,380	3,810.0	52,300	3,840.0	232,900
3,795.0	11,100	3,820.0	94,400	3,850.0	333,800

CONTENTS, IN ACRE FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81400	67700	75400	89800	105000	123000	143000	163000	194000	200000	183000	186000
2	80800	68100	76000	90200	106000	124000	144000	163000	197000	200000	183000	185000
3	80100	68300	76800	90500	107000	124000	144000	163000	200000	201000	182000	184000
4	79700	68600	77800	91000	107000	125000	144000	166000	203000	204000	182000	183000
5	79300	68800	78600	91400	108000	125000	145000	169000	207000	206000	181000	182000
6	78500	69000	79000	91900	108000	125000	145000	171000	210000	208000	181000	180000
7	76900	69300	79800	92600	109000	126000	146000	172000	211000	209000	180000	179000
8	75700	69500	80300	93200	109000	126000	146000	173000	211000	209000	180000	177000
9	74200	69700	81000	93700	110000	127000	147000	173000	210000	209000	178000	175000
10	73000	69800	81600	94400	111000	128000	148000	173000	209000	208000	177000	174000
11	71800	70100	82100	95200	111000	129000	149000	173000	208000	206000	175000	172000
12	70500	70300	82900	95800	112000	130000	149000	173000	207000	204000	174000	171000
13	69800	70500	83500	96300	112000	131000	150000	173000	205000	203000	172000	169000
14	69700	70700	84000	96700	112000	132000	153000	173000	204000	202000	170000	167000
15	69600	70800	84500	96900	113000	133000	154000	173000	203000	202000	168000	165000
16	69400	71200	84800	97200	114000	134000	154000	173000	202000	201000	166000	164000
17	69300	71400	85200	97600	115000	134000	155000	173000	200000	202000	164000	163000
18	69200	71800	85300	97900	116000	135000	156000	173000	200000	202000	162000	161000
19	69000	72000	85600	98400	116000	136000	155000	174000	201000	202000	159000	160000
20	68900	72200	85900	98600	117000	136000	158000	175000	201000	200000	158000	158000
21	68700	72400	86200	99100	118000	137000	159000	175000	201000	198000	158000	157000
22	68500	72600	86500	99400	119000	137000	160000	175000	201000	197000	162000	155000
23	68400	72800	86600	99900	120000	138000	161000	174000	201000	195000	167000	154000
24	68200	73000	87100	100000	120000	138000	162000	174000	200000	193000	175000	152000
25	68100	73300	87400	101000	121000	139000	162000	174000	200000	191000	178000	150000
26	68100	73700	87700	101000	122000	139000	162000	175000	200000	189000	181000	149000
27	68000	73900	88100	102000	122000	140000	162000	178000	200000	187000	184000	148000
28	67800	74000	88600	102000	123000	141000	162000	181000	199000	186000	186000	147000
29	67700	74200	88900	103000	123000	141000	163000	185000	199000	186000	186000	146000
30	67600	74700	89200	104000	---	142000	163000	189000	199000	185000	186000	145000
31	67500	---	89500	104000	---	142000	---	192000	---	184000	186000	---
MAX	81400	74700	89500	104000	123000	142000	163000	192000	211000	209000	186000	186000
MIN	67500	67700	75400	89800	105000	123000	143000	163000	194000	184000	158000	145000

WTR YR 1984 MAX 211000 MIN 67500

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO

LOCATION.--Lat 38°03'59", long 102°55'55", in NW¼NE¼ sec.8, T.23 S., R.49 W , Bent County, Hydrologic Unit 11020009, on right bank 0.2 mi downstream from John Martin Dam, 2.6 mi upstream from Caddoa Creek, and 3.5 mi southeast of Hasty.

DRAINAGE AREA.--18,915 mi^2, of which 785 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, March 1938 to current year. Published as "at Caddoa" prior to October 1947. Water-quality data available, August 1942 to August 1943, October 1945 to July 1949, January 1951 to September 1981.

REVISED RECORDS.--WSP 1241: 1942(M). WSP 1341: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,737.40 ft, National Geodetic Vertical Datum of 1929. Prior to Feb. 22, 1940, at site 3 mi upstream at datum 22.83 ft, higher. Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft upstream at datum 3.64 ft, higher, Feb. 5, 1943, to Apr. 8, 1975, at site 1.5 mi downstream at datum approximately 27.5 ft, lower.

REMARKS.--Records good. Storage diversions above station for irrigation of about 438,000 acres and for flood control. Flow completely regulated by John Martin Dam (station 07130000) 0.2 mi upstream since Oct. 1948. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1939-43), 628 ft^3/s, unadjusted; 455,000 acre-ft/yr, during construction of John Martin Dam: 36 years (water years 1949-84), 234 ft^3/s; 169,500 acre-ft/yr, adjusted for storage in John Martin Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft^3/s, Apr. 24, 1942, gage height, 10.46 ft, site and datum then in use, from rating curve extended above 12,000 ft^3/s, on basis of flow-over-dam and critical-depth measurement of peak flow; no flow at times in 1945-47; minimum daily prior to construction of John Martin Reservoir, 5 ft^3/s, July 16, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft^3/s at 1430 June 16, gage height, 4.50 ft; minimum daily, 1.4 ft^3/s, many days during winter.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	398	179	4.0	2.0	2.4	1.5	2.5	304	598	1020	561	1070
2	398	26	4.0	2.3	2.2	1.7	2.6	301	596	991	577	1070
3	390	5.1	4.0	2.5	2.2	2.0	2.3	297	597	972	589	1070
4	373	5.8	3.6	2.3	2.2	2.0	2.1	299	598	964	579	1040
5	369	5.3	2.6	2.1	2.2	1.9	2.0	305	596	692	563	1020
6	745	4.8	1.6	2.0	2.2	1.7	1.8	305	828	536	573	997
7	1050	4.8	1.6	2.0	2.2	1.7	1.7	318	1310	551	577	998
8	1080	4.8	1.6	2.0	2.2	1.6	2.1	345	1330	551	577	1010
9	1080	4.4	1.6	2.0	2.3	1.5	3.1	355	1320	520	733	1010
10	997	4.4	1.6	2.0	2.2	1.4	3.2	366	1320	943	958	1000
11	956	4.8	1.6	2.0	2.1	1.6	3.0	372	1310	1240	1020	1010
12	902	4.8	1.6	2.0	2.2	1.4	2.8	369	1270	1330	1080	1010
13	648	4.4	1.6	2.0	2.2	1.4	2.8	370	1140	1300	1110	1010
14	373	4.4	1.6	2.0	2.3	1.7	3.1	465	1300	1250	1080	1010
15	373	4.4	1.6	2.0	1.9	2.0	3.0	526	1370	1240	1080	1010
16	373	4.8	1.6	2.0	2.2	1.8	3.0	541	1400	791	1120	1020
17	369	4.8	1.4	2.0	2.3	1.9	3.2	613	1380	365	1140	1010
18	369	4.8	1.4	2.0	2.4	3.0	3.2	646	1270	476	1120	1030
19	369	4.4	1.4	2.2	2.2	2.1	28	643	1180	498	1080	1040
20	362	4.4	1.4	2.2	2.0	2.0	42	639	1180	815	1060	1040
21	365	4.4	1.4	2.2	1.7	2.2	32	616	1180	1020	1040	1050
22	369	4.4	1.4	2.2	1.6	2.4	32	599	1170	1020	1010	1040
23	369	4.0	1.4	2.2	1.5	2.3	33	653	1160	1040	1040	1040
24	369	4.0	1.4	2.4	1.7	2.2	28	676	1160	1050	1040	1030
25	369	4.4	1.4	2.5	1.5	2.2	160	693	1170	1050	1050	1020
26	369	4.4	1.4	2.5	1.5	2.2	262	664	1180	1040	1050	997
27	369	4.0	1.6	2.5	1.4	2.2	292	664	1180	1040	1020	962
28	369	4.4	2.0	2.5	1.4	2.2	314	652	1140	880	1010	887
29	369	4.0	2.0	2.5	1.4	2.2	318	682	1090	604	1020	851
30	369	4.0	2.0	2.5	---	2.2	314	719	1020	577	1040	850
31	369	---	2.0	2.5	---	2.5	---	649	---	561	1060	---
TOTAL	16029	332.4	59.4	68.1	57.8	60.7	1902.5	15646	33343	26927	28557	30202
MEAN	517	11.1	1.92	2.20	1.99	1.96	63.4	505	1111	869	921	1007
MAX	1080	179	4.0	2.5	2.4	3.0	318	719	1400	1330	1140	1070
MIN	362	4.0	1.4	2.0	1.4	1.4	1.7	297	596	365	561	850
AC-FT	31790	659	118	135	115	120	3770	31030	66140	53410	56640	59910

CAL YR 1983 TOTAL 147870.9 MEAN 405 MAX 1490 MIN 1.4 AC-FT 293300
WTR YR 1984 TOTAL 153184.9 MEAN 419 MAX 1400 MIN 1.4 AC-FT 303800

07133000 ARKANSAS RIVER AT LAMAR, CO

LOCATION.--Lat 38°06'21", long 102°37'05", in NE¼SE¼ sec.30, T.22 S., R.46 W., Prowers County, Hydrologic Unit 11020009, on left bank at downstream side of bridge on U.S. Highways 50 and 287, and 1.3 mi north of courthouse in Lamar.

DRAINAGE AREA.--19,780 mi², of which 950 mi² is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May 1913 to September 1955, April 1959 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1965, September 1969 to August 1972.

REVISED RECORDS.--WSP 1341: 1921(M), 1945-46(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,602.23 ft, National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Apr. 4, 1959. Apr. 4, 1959, to Mar. 26, 1968, at site 450 ft upstream at datum 2.42 ft, higher. Mar. 27, 1968 to Nov. 17, 1982 at datum 4.00 ft, lower.

REMARKS.--Records good except those for winter period which are fair, and those for period of no gage-height record, Oct. 13 to Dec. 5, which are poor. Flow regulated by John Martin Reservoir (station 07130000) 21 mi upstream since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 487,000 acres, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1914-43), 298 ft³/s; 215,900 acre-ft/yr, prior to and during construction of John Martin Dam, 32 years (water years 1949-55, 1960-84), 93.8 ft³/s, unadjusted; 67,790 acre-ft/yr, subsequent to completion of John Martin Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s, June 5, 1921, gage height, 14.55 ft, present datum, from rating curve extended above 10,000 ft³/s; maximum gage height, 16.48 ft, June 18, 1965, present datum, from floodmarks; no flow at times in 1913-15, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,780 ft³/s at 0800 July 16, gage height, 9.04 ft, from rating curve extended above 900 ft³/s; minimum daily, 5.2 ft³/s, Apr. 7-8, 14-19, 22-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	15	48	30	34	25	33	6.3	83	537	35	540
2	33	15	46	30	33	25	38	5.8	68	516	30	540
3	38	12	45	42	29	26	40	6.1	64	498	24	540
4	29	10	45	33	26	25	34	6.5	69	350	34	520
5	19	10	45	32	26	25	33	6.4	72	160	28	500
6	96	10	47	31	26	24	15	6.4	74	115	36	500
7	497	10	37	29	25	23	5.2	6.4	568	95	59	500
8	592	9.5	34	29	26	23	5.2	6.4	689	80	47	500
9	613	9.5	36	27	27	24	14	21	675	70	53	520
10	618	9.5	37	27	26	22	33	25	686	400	339	540
11	571	9.5	38	28	26	22	35	8.2	679	650	493	542
12	554	9.5	36	27	26	21	21	7.7	667	720	546	543
13	470	9.5	34	26	26	15	5.7	7.8	672	728	597	536
14	250	9.5	33	25	27	5.5	5.2	7.5	679	650	595	535
15	100	9.0	34	25	26	5.5	5.2	14	774	664	590	520
16	70	9.0	42	25	26	5.5	5.2	12	821	1090	655	521
17	55	9.0	29	25	26	5.5	5.2	18	836	242	611	515
18	40	15	25	20	27	5.5	5.2	86	828	130	597	506
19	35	20	25	20	29	20	5.2	87	685	109	550	516
20	30	20	25	25	29	33	6.1	88	673	135	542	529
21	25	20	30	28	29	37	5.8	95	670	471	500	515
22	20	20	25	30	29	38	5.2	89	671	510	500	532
23	15	25	20	30	33	38	5.2	78	636	504	520	542
24	15	30	20	30	29	36	5.2	68	638	475	520	539
25	15	40	20	30	27	35	5.2	61	629	485	530	519
26	15	45	25	32	28	35	5.2	66	638	496	530	511
27	15	45	27	32	27	33	5.2	55	630	483	510	496
28	15	40	25	35	25	32	5.8	52	611	478	490	491
29	15	45	25	36	25	31	32	49	562	118	470	469
30	15	45	25	35	---	29	29	41	514	83	490	468
31	15	---	25	35	---	32	---	77	---	57	500	---
TOTAL	4921	585.5	1008	909	798	756.5	453.2	1163.5	16561	12099	12021	15545
MEAN	159	19.5	32.5	29.3	27.5	24.4	15.1	37.5	552	390	388	518
MAX	618	45	48	42	34	38	40	95	836	1090	655	543
MIN	15	9.0	20	20	25	5.5	5.2	5.8	64	57	24	468
AC-FT	9760	1160	2000	1800	1580	1500	899	2310	32850	24000	23840	30830

CAL YR 1983 TOTAL 61739.2 MEAN 169 MAX 831 MIN 3.3 AC-FT 122500
WTR YR 1984 TOTAL 66820.7 MEAN 183 MAX 1090 MIN 5.2 AC-FT 132500

NOTE.--NO GAGE-HEIGHT RECORD OCT. 13 TO DEC. 5.

07134180 ARKANSAS RIVER NEAR GRANADA, CO

LOCATION.--Lat 38°05'44", long 102°18'37", in SE¼NE¼ sec.36, T.22 S., R.44 W., Prowers County, Hydrologic Unit 11020009, on left bank at upstream side at end of bridge on U.S. Highway 385, 1.2 mi downstream from headgate of Buffalo Canal and 2.3 mi north of Granada.

DRAINAGE AREA.--23,707 mi².

PERIOD OF RECORD.--January 1899 to December 1901, gage heights only at different site and datum, August to October 1903, December 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,480 ft, from topographic map.

REMARKS.--Records good except those for December and January, which are fair. Flow regulated by John Martin Reservoir (station 07130000) 38 mi upstream since October 1948. Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,480 ft³/s, July 17, 1984, gage height, 9.28 ft, from rating curve extended above 1,030 ft³/s; minimum daily, 3.3 ft³/s, May 27-28, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft³/s at 0330 July 17, gage height, 9.28 ft, from rating curve extended above 1,030 ft³/s; minimum daily, 8.6 ft³/s, June 4-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	60	125	153	124	107	129	51	12	450	160	401
2	81	57	128	141	118	106	139	38	11	469	140	431
3	81	61	135	130	113	108	149	36	9.7	443	127	436
4	83	56	137	129	102	106	147	32	8.6	458	110	422
5	76	57	139	130	99	105	136	30	8.6	455	107	421
6	67	55	134	125	103	104	127	29	9.1	317	89	404
7	225	54	138	120	104	106	108	26	144	199	90	391
8	480	52	136	120	103	105	109	23	472	171	84	390
9	576	50	136	118	105	102	104	24	538	153	79	390
10	605	48	138	116	106	97	139	29	567	123	145	394
11	576	47	135	119	98	96	163	28	571	321	283	410
12	558	45	136	114	92	97	159	25	523	574	353	431
13	528	43	132	108	95	95	141	24	500	664	416	426
14	348	42	132	105	103	92	137	22	445	631	453	425
15	173	39	125	100	105	83	126	21	450	631	452	437
16	130	40	121	90	94	78	127	21	500	1130	467	434
17	105	39	118	90	100	76	120	17	650	833	490	430
18	92	45	102	80	101	80	106	25	700	347	484	413
19	78	51	95	77	94	82	96	38	700	265	463	424
20	71	53	95	77	96	108	95	17	552	225	450	435
21	68	53	100	77	104	125	105	18	546	336	437	442
22	69	54	90	114	108	121	136	20	540	444	385	443
23	65	62	90	118	115	126	129	18	526	453	392	458
24	62	67	90	115	112	130	106	17	519	427	420	470
25	60	73	90	125	111	131	93	15	526	431	430	463
26	60	75	95	124	108	137	111	15	538	430	430	463
27	67	115	100	121	106	132	96	14	537	438	434	469
28	64	131	98	118	100	125	46	12	543	443	417	451
29	59	115	98	120	103	122	71	11	511	338	397	456
30	58	124	129	121	---	122	79	9.7	472	221	373	438
31	60	---	135	123	---	128	---	9.0	---	187	390	---
TOTAL	5709	1863	3652	3518	3022	3332	3529	714.7	12629.0	13007	9947	12898
MEAN	184	62.1	118	113	104	107	118	23.1	421	420	321	430
MAX	605	131	139	153	124	137	163	51	700	1130	490	470
MIN	58	39	90	77	92	76	46	9.0	8.6	123	79	390
AC-FT	11320	3700	7240	6980	5990	6610	7000	1420	25050	25800	19730	25580

CAL YR 1983 TOTAL 74723.0 MEAN 205 MAX 715 MIN 5.2 AC-FT 148200
WTR YR 1984 TOTAL 73820.7 MEAN 202 MAX 1130 MIN 8.6 AC-FT 146400

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38°02'18", long 102°02'19", in SW¼SE¼NE¼ sec.21, T.23 S., R.43 W., Hamilton County, Kans., Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion from Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. This ditch diverts water from Arkansas River in Colorado for use in Kansas. These records and records for Arkansas River near Coolidge (station 07137500) represent total flow of Arkansas River at the Colorado-Kansas State line.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 ft³/s, Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	25	27	32	40
2	.00	.00	.00	.00	.00	.00	.00	.00	22	26	25	36
3	.00	.00	.00	.00	.00	.00	.00	.00	32	26	19	32
4	.00	.00	.00	.00	.00	.00	.00	.00	30	26	16	32
5	.00	.00	.00	.00	.00	.00	.00	.00	31	26	12	29
6	.00	.00	.00	.00	.00	.00	.00	.00	31	24	10	25
7	.00	.00	.00	.00	.00	.00	.00	.00	33	22	17	22
8	.00	.00	.00	.00	.00	.00	.00	.00	31	24	33	20
9	.00	.00	.00	.00	.00	.00	.00	.00	24	24	31	20
10	.00	.00	.00	.00	.00	.00	.00	.00	21	27	28	21
11	.00	.00	.00	.00	.00	.00	.00	.00	21	28	30	11
12	.00	.00	.00	.00	.00	.00	.00	.00	18	36	30	5.3
13	.00	.00	.00	.00	.00	6.8	.00	.00	17	32	37	20
14	.00	.00	.00	.00	.00	23	.00	.00	16	32	34	21
15	.00	.00	.00	.00	.00	.00	.00	.00	17	32	23	20
16	.00	.00	.00	.00	.00	.00	.00	.00	20	62	23	14
17	.00	.00	.00	.00	.00	.00	.00	.00	18	24	25	16
18	.00	.00	.00	.00	.00	.00	.00	.00	7.5	.28	25	15
19	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	24	14
20	.00	.00	.00	.00	.00	.00	.00	.00	16	14	23	13
21	.00	.00	.00	.00	.00	.00	.00	22	31	25	25	19
22	.00	.00	.00	.00	.00	.00	.00	24	37	24	24	22
23	.00	.00	.00	.00	.00	.00	.00	24	35	24	16	18
24	.00	.00	.00	.00	.00	.00	.00	26	31	22	12	15
25	.00	.00	.00	.00	.00	.00	.00	26	32	22	24	16
26	.00	.00	.00	.00	.00	.00	.00	26	34	20	22	21
27	.00	.00	.00	.00	.00	.00	.00	22	33	19	26	24
28	.00	.00	.00	.00	.00	.00	.00	22	33	21	28	21
29	.00	.00	.00	.00	.00	.00	.00	25	32	20	36	15
30	.00	.00	.00	.00	---	.00	.00	27	33	21	40	3.7
31	.00	---	.00	.00	---	.00	---	30	---	28	40	---
TOTAL	.00	.00	.00	.00	.00	29.80	.00	274.00	774.5	758.28	790	601.0
MEAN	.000	.000	.000	.000	.000	.96	.000	8.84	25.8	24.5	25.5	20.0
MAX	.00	.00	.00	.00	.00	23	.00	30	37	62	40	40
MIN	.00	.00	.00	.00	.00	.00	.00	.00	7.5	.00	10	3.7
AC-FT	.00	.00	.00	.00	.00	59	.00	543	1540	1500	1570	1190

CAL YR 1983 TOTAL 4115.81 MEAN 11.3 MAX 56 MIN .00 AC-FT 8160
WTR YR 1984 TOTAL 3227.58 MEAN 8.82 MAX 62 MIN .00 AC-FT 6400

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS

LOCATION.--Lat 38°01'34", long 102°00'41", in NW¼NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, KS, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi south of Coolidge, and 1.9 mi downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi^2, of which 1,708 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft, National Geodetic Vertical Datum of 1929. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datums. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft, higher.

REMARKS.--Records good except those for winter period, which are fair. Combined flow of river and Frontier Ditch (station 07137000) represents entire flow that enters Kansas. Flow regulated by John Martin Reservoir (station 07130000) since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 500,000 acres, and return flow from irrigated areas.

AVERAGE DISCHARGE.--34 years (water years 1951-84), 179 ft^3/s; 129,700 acre-ft/yr, subsequent to completion of John Martin Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft^3/s, June 17, 1965, gage height, 14.8 ft, present site and datum, from floodmarks, from rating curve extended above 13,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,670 ft^3/s, July 16, gage height, 8.88 ft; minimum daily, 63 ft^3/s, June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	151	158	118	168	132	159	209	89	438	279	458
2	138	143	164	160	166	132	180	196	81	446	262	476
3	132	139	168	215	150	132	187	152	77	426	242	514
4	136	130	169	260	147	133	183	126	73	420	226	515
5	138	127	169	220	142	130	187	123	69	426	209	496
6	133	137	166	184	139	126	181	121	63	401	197	477
7	139	128	163	175	142	125	169	132	71	279	182	440
8	310	123	165	170	139	124	157	129	233	225	167	428
9	479	121	163	164	140	128	158	118	419	201	145	436
10	580	121	163	159	144	126	265	105	472	178	145	446
11	609	126	162	160	146	126	210	105	502	185	210	449
12	557	115	167	154	136	127	191	102	516	376	307	476
13	535	112	167	145	133	124	181	97	508	495	384	457
14	475	110	163	141	132	130	175	143	478	554	467	455
15	300	106	159	137	141	126	172	112	489	565	497	476
16	253	103	156	120	134	118	163	93	549	2120	509	491
17	223	106	154	105	134	114	162	91	600	2030	549	506
18	210	110	147	94	139	114	159	100	634	813	551	480
19	184	115	122	85	123	122	150	108	636	527	550	470
20	177	124	120	80	124	139	146	127	539	440	551	481
21	179	130	115	90	131	148	163	115	519	409	556	500
22	164	129	110	100	140	152	193	103	500	524	524	503
23	166	131	110	115	142	150	202	88	498	559	494	512
24	163	131	105	130	141	153	180	79	481	539	527	522
25	158	135	110	145	142	160	151	78	487	531	520	534
26	155	136	115	160	136	198	139	88	494	521	534	567
27	159	124	110	178	130	171	146	95	495	509	533	592
28	153	117	100	210	127	161	153	83	507	515	515	589
29	150	132	95	190	127	159	195	76	484	508	475	607
30	153	144	90	176	---	155	198	78	454	373	443	614
31	153	---	95	169	---	159	---	85	---	312	445	---
TOTAL	7606	3756	4320	4709	4037	4294	5255	3457	12017	16845	12195	14976
MEAN	245	125	139	152	139	139	175	112	401	543	393	499
MAX	609	151	169	260	168	198	265	209	636	2120	556	614
MIN	132	103	90	80	123	114	139	76	63	178	145	428
AC-FT	15090	7450	8570	9340	8010	8520	10420	6860	23840	33410	24190	29700

CAL YR 1983 TOTAL 82350 MEAN 226 MAX 950 MIN 14 AC-FT 163300
WTR YR 1984 TOTAL 93467 MEAN 255 MAX 2120 MIN 63 AC-FT 185400

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1963 to September 1968, October 1969 to September 1973, April 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to September 1968, January 1976 to September 1981.
WATER TEMPERATURES: November 1963 to September 1968, January 1976 to September 1981.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,800 micromhos Mar. 29, 1978; minimum daily, 454 micromhos June 18, 1965.
WATER TEMPERATURES: Maximum, 34.5°C July 20, 1976; minimum, 0.0°C on several days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT										
05...	1415	--	--	--	17.0	--	--	--	--	--
19...	1225	--	--	--	14.0	--	--	--	--	--
NOV										
01...	1130	--	--	--	12.0	--	--	--	--	--
17...	1440	--	--	--	9.5	--	--	--	--	--
DEC										
12...	1315	169	4080	8.2	7.0	37	11.0	--	380	1700
FEB										
02...	1420	160	4200	8.2	6.5	70	12.2	19	K2600	1800
MAY										
03...	1415	150	4000	8.1	16.5	110	9.2	60	720	1400
JUL										
16...	1825	3660	--	--	--	--	--	--	--	--
AUG										
10...	1015	--	--	--	19.0	--	--	--	--	--
24...	1030	540	2290	8.2	22.0	65	--	5600	--	920
SEP										
14...	1505	--	--	--	19.0	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
NOV										
01...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
DEC										
12...	370	190	500	5	--	255	2200	170	1.1	19
FEB										
02...	390	190	560	6	9.7	285	2300	160	1.1	20
MAY										
03...	280	170	560	7	10	268	2200	170	1.0	14
JUL										
16...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
24...	210	94	250	4	7.1	182	1100	72	.90	12
SEP										
14...	--	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
NOV										
01...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
DEC										
12...	4070	--	5.5	1860	2.6	<.000	.90	.000	<.000	<.000
FEB										
02...	4080	3800	5.5	1760	2.6	.000	1.0	.110	<.000	<.000
MAY										
03...	3940	3600	5.4	1600	2.4	.530	2.0	.210	.000	<.000
JUL										
16...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
24...	1970	1900	2.7	2870	.81	.000	1.1	.210	.000	.000
SEP										
14...	--	--	--	--	--	--	--	--	--	--

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
DEC										
12...	50	200	--	--	<1	--	--	--	--	170
FEB										
02...	30	<100	<10	<1	<1	<1	2	220	<1	180
MAY										
03...	20	200	<10	<1	1	<1	4	50	1	150
AUG										
24...	30	<100	<10	1	4	1	8	30	4	90

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
12...	--	.6	7	--	6	--	--	4	--
FEB									
02...	30	<.1	7	3	34	<1	6400	5	20
MAY									
03...	30	.1	7	3	21	<1	7500	1	20
AUG									
24...	10	<.1	8	5	13	<1	3400	2	10

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
DEC												
12...	1315	169	224	102	--	--	--	83	85	95	100	--
FEB												
02...	1420	160	236	102	--	--	--	81	88	98	100	--
MAY												
03...	1415	150	1880	761	--	--	--	17	17	17	39	94
JUL												
16...	1825	3660	3890	38400	28	36	43	44	44	46	57	91
AUG												
24...	1030	540	383	558	--	--	--	63	74	82	93	100

RIO GRANDE BASIN

08213500 RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, CO

LOCATION.--Lat 37°43'29", long 107°15'18", in NE¼ sec.13, T.40 N., R.4 W., Hinsdale County, Hydrologic Unit 13010001, on right bank 70 ft downstream from bridge, 500 ft upstream from Squaw Creek, 0.8 mi downstream from Rio Grande Reservoir, and 20 mi southwest of Creede.

DRAINAGE AREA.--163 mi^2.

PERIOD OF RECORD.--June 1909 to September 1923, May 1925 to current year. No winter records 1910, 1926. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 9,300 ft, from topographic map. See WSP 1712 or 1732 for history of changes prior to Oct. 1, 1934.

REMARKS.--Records good. Flow regulated by Rio Grande Reservoir, capacity, 51,110 acre-ft, since 1912. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Weminuche Pass and Pine River-Weminuche Pass ditches. No known diversions above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--69 years (water years 1911-23, 1927-82), 211 ft^3/s; 152,900 acre-ft/yr: 71 years, (water years 1911-23, 1927-84), 212 ft^3/s; 153,600 acre-ft/yr

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s, June 28, 1927, gage height, 7.03 ft, present datum, from rating curve extended above 1,200 ft^3/s; minimum daily, 0.10 ft^3/s, Nov. 2-4, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft^3/s at 0300 May 27, gage height, 4.25 ft; minimum daily, 4.8 ft^3/s, Nov. 23 to Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	33	4.8	5.2	5.6	6.0	6.4	8.3	1700	1450	385	232
2	136	14	4.8	5.2	5.6	6.0	6.4	8.7	1500	1360	365	266
3	136	13	4.9	5.2	5.6	6.0	6.4	8.7	1380	1200	282	346
4	136	13	4.9	5.3	5.6	6.0	6.4	8.7	1260	1020	263	346
5	136	13	4.9	5.3	5.7	6.0	6.4	9.1	1060	1040	260	319
6	136	13	4.9	5.3	5.7	6.0	6.4	9.1	890	1150	260	223
7	136	13	4.9	5.3	5.7	6.0	6.4	9.1	810	1120	302	177
8	136	14	4.9	5.3	5.7	6.1	6.4	9.1	738	1100	370	143
9	117	12	4.9	5.3	5.7	6.1	6.5	9.1	599	1100	314	131
10	92	8.3	4.9	5.3	5.7	6.1	6.5	125	526	1060	270	131
11	94	6.8	5.0	5.3	5.7	6.1	6.5	194	546	1030	242	131
12	83	6.8	5.0	5.4	5.7	6.1	6.5	194	685	988	229	131
13	76	6.8	5.0	5.4	5.8	6.1	6.5	263	898	962	194	131
14	100	6.8	5.0	5.4	5.8	6.1	6.5	314	1190	954	162	131
15	125	6.8	5.0	5.4	5.8	6.1	6.5	324	1450	988	150	134
16	125	6.5	5.0	5.4	5.8	6.2	6.5	115	1490	1010	152	134
17	53	5.8	5.0	5.4	5.8	6.2	6.5	14	1240	997	174	152
18	13	5.8	5.0	5.4	5.8	6.2	6.8	15	1090	988	211	164
19	13	5.8	5.1	5.4	5.8	6.2	6.8	15	1050	979	252	147
20	66	5.8	5.1	5.5	5.8	6.2	6.8	305	1080	954	306	119
21	121	5.8	5.1	5.5	5.9	6.2	6.8	286	1130	898	332	111
22	107	5.2	5.1	5.5	5.9	6.2	6.8	119	1170	866	332	111
23	73	4.8	5.1	5.5	5.9	6.2	7.2	66	1120	874	332	111
24	57	4.8	5.1	5.5	5.9	6.3	7.2	28	1280	922	410	111
25	74	4.8	5.1	5.5	5.9	6.3	7.6	382	1260	979	444	111
26	134	4.8	5.1	5.5	5.9	6.3	7.6	1730	1290	988	444	111
27	154	4.8	5.2	5.5	5.9	6.3	7.6	1990	1340	979	444	131
28	154	4.8	5.2	5.6	5.9	6.3	7.9	1900	1380	641	444	152
29	95	4.8	5.2	5.6	6.0	6.3	7.9	1860	1440	422	385	152
30	62	4.8	5.2	5.6	---	6.3	8.3	1860	1470	395	298	152
31	62	---	5.2	5.6	---	6.3	---	1800	---	395	232	---
TOTAL	3129	259.4	155.6	167.6	167.6	190.8	205.0	13978.9	34062	29809	9240	4941
MEAN	101	8.65	5.02	5.41	5.78	6.15	6.83	451	1135	962	298	165
MAX	154	33	5.2	5.6	6.0	6.3	8.3	1990	1700	1450	444	346
MIN	13	4.8	4.8	5.2	5.6	6.0	6.4	8.3	526	395	150	111
AC-FT	6210	515	309	332	332	378	407	27730	67560	59130	18330	9800

CAL YR 1983 TOTAL 71653.0 MEAN 196 MAX 2090 MIN 1.9 AC-FT 142100
WTR YR 1984 TOTAL 96305.9 MEAN 263 MAX 1990 MIN 4.8 AC-FT 191000

NOTE.--NO GAGE HEIGHT RECORD NOV. 25 TO APR. 17.

08214500 NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, CO

LOCATION.--Lat 37°53'18", long 107°12'10", in NE¼SW¼ sec.21, T.42 N., R.3 S., Hinsdale County, Hydrologic Unit 13010001, on left bank 100 ft downstream from bridge, 1,000 ft downstream from Continental Reservoir, and 15 mi west of Creede.

DRAINAGE AREA.--51.7 mi².

PERIOD OF RECORD.--May 1929 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1960, published as Clear Creek below Continental Reservoir.

REVISED RECORDS.--WSP 1008: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10,200 ft, from topographic map. Prior to Oct. 2, 1951, at site 150 ft upstream, at different datum.

REMARKS.--Records good except those for period of no gage-height record which are fair. Flow regulated by Continental Reservoir, capacity, 26,720 acre-ft. No diversion above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years, 30.1 ft³/s; 21,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 362 ft³/s, May 8, 1952, gage height, 3.66 ft, from rating curve extended above 120 ft³/s; no flow, June 22, 23, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft³/s at 1930 May 13, gage height, 2.14 ft; minimum daily, 0.05 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	.05	.16	.18	.20	.22	.24	.05	72	77	97	58
2	21	.05	.16	.18	.20	.22	.24	.05	90	72	109	57
3	19	.05	.16	.18	.20	.22	.25	.15	109	61	110	61
4	18	.15	.16	.18	.20	.22	.25	.15	126	51	96	66
5	17	.15	.16	.18	.20	.22	.25	.15	147	49	95	66
6	17	.15	.16	.18	.20	.23	.25	.15	144	50	101	57
7	17	.15	.16	.18	.21	.23	.25	.15	50	50	101	40
8	16	.15	.16	.18	.21	.23	.25	.15	51	50	99	22
9	16	.15	.16	.18	.21	.23	.25	.15	103	50	93	21
10	16	.15	.16	.19	.21	.23	.25	14	88	55	103	28
11	16	.15	.16	.19	.21	.23	.25	42	76	54	103	34
12	16	.15	.16	.19	.21	.23	.25	88	76	47	103	40
13	16	.15	.17	.19	.21	.23	.25	177	81	41	66	39
14	17	.15	.17	.19	.21	.23	.25	75	88	42	51	36
15	15	.15	.17	.19	.21	.23	.25	36	101	48	52	34
16	16	.15	.17	.19	.21	.23	.25	92	110	60	56	37
17	16	.15	.17	.19	.21	.23	.25	95	116	66	73	39
18	16	.15	.17	.19	.21	.23	.25	97	106	58	79	23
19	16	.15	.17	.19	.21	.23	.25	97	95	49	83	10
20	15	.15	.17	.19	.21	.24	.15	99	90	37	75	14
21	6.3	.15	.17	.19	.22	.24	.15	99	82	34	73	16
22	.15	.15	.17	.19	.22	.24	.15	75	62	36	80	16
23	.15	.15	.17	.19	.22	.24	.05	62	50	37	73	15
24	.15	.15	.17	.20	.22	.24	.05	51	52	37	72	20
25	.15	.15	.17	.20	.22	.24	.05	17	64	38	74	20
26	.15	.15	.17	.20	.22	.24	.05	1.2	75	45	73	17
27	.15	.15	.18	.20	.22	.24	.05	1.4	86	48	67	19
28	.15	.15	.18	.20	.22	.24	.05	1.6	87	42	60	19
29	.15	.16	.18	.20	.22	.24	.05	1.6	75	39	53	17
30	.15	.16	.18	.20	---	.24	.05	19	74	80	51	14
31	.05	---	.18	.20	---	.24	---	54	---	105	53	---
TOTAL	349.70	4.22	5.20	5.88	6.12	7.20	5.58	1295.95	2626	1608	2474	955
MEAN	11.3	.14	.17	.19	.21	.23	.19	41.8	87.5	51.9	79.8	31.8
MAX	26	.16	.18	.20	.22	.24	.25	177	147	105	110	66
MIN	.05	.05	.16	.18	.20	.22	.05	.05	50	34	51	10
AC-FT	694	8.4	10	12	12	14	11	2570	5210	3190	4910	1890

CAL YR 1983	TOTAL	11664.22	MEAN	32.0	MAX 239	MIN	.05	AC-FT	23140
WTR YR 1984	TOTAL	9342.85	MEAN	25.5	MAX 177	MIN	.05	AC-FT	18530

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 17, APR. 23 TO MAY 13.

08217500 RIO GRANDE AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°46'01", long 106°49'51", in NW¼NE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on right bank 250 ft upstream from private bridge, 0.4 mi upstream from Goose Creek, and 0.4 mi west of town of Wagonwheel Gap.

DRAINAGE AREA.--780 mi^2.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,431.26 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Santa Maria, Rio Grande, and Continental Reservoirs, combined capacity, 121,400 acre-ft. Diversions above station for irrigation. Transmountain diversions to drainaga area above station from Colorado River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--33 years, 514 ft^3/s; 372,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,870 ft^3/s, July 26, 1957, gage height, 5.38 ft; maximum gage height, 5.84 ft, Sept. 6, 1970; minimum daily discharge, 46 ft^3/s, Dec. 9, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,250 ft^3/s at 0430 May 27, gage height, 5.32 ft; minimum daily, 92 ft^3/s, Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	232	131	111	112	130	118	239	3300	2080	1100	903
2	609	192	132	110	113	120	95	248	3060	2040	1090	889
3	542	161	132	110	114	120	103	239	2850	1820	1040	906
4	494	153	132	109	114	120	107	263	2550	1630	955	884
5	470	153	131	109	115	120	128	289	2290	1520	965	845
6	458	150	130	108	116	120	146	294	2100	1630	1040	763
7	446	145	130	108	117	125	142	283	1910	1630	988	646
8	440	154	130	108	118	130	152	282	1770	1630	1020	574
9	440	131	129	107	118	130	187	345	1500	1750	982	507
10	405	136	128	107	119	130	152	475	1330	1780	887	494
11	380	160	127	107	120	130	187	970	1310	1620	807	498
12	365	150	126	107	120	125	169	1260	1470	1540	789	533
13	345	142	125	105	121	125	194	1600	1730	1550	768	505
14	340	140	124	103	122	120	200	1920	2180	1670	620	486
15	370	105	123	101	123	120	232	1950	2570	1630	599	514
16	370	117	122	100	124	120	282	1790	2910	1680	602	612
17	375	125	121	100	125	125	333	1500	2500	1680	648	594
18	425	155	120	99	126	130	371	1570	2120	1610	761	580
19	370	107	120	99	127	135	372	1410	2010	1580	863	524
20	353	111	119	100	128	135	318	1790	2040	1550	948	487
21	315	123	118	101	128	135	276	2510	2080	1480	940	445
22	327	92	118	102	129	135	256	2670	2060	1410	899	448
23	296	99	117	103	129	130	266	2870	1960	1410	946	429
24	259	101	117	105	130	125	297	2920	1960	1490	1080	479
25	252	108	116	106	131	120	321	3040	2020	1590	1100	441
26	268	112	116	107	132	115	272	3900	2070	1590	1080	414
27	327	118	115	108	133	110	237	4100	2100	1580	1050	408
28	338	121	114	108	134	108	246	3920	2080	1480	1010	434
29	334	125	113	109	135	108	246	3760	2100	1170	980	426
30	252	129	112	110	---	126	237	3640	2110	1190	865	419
31	232	---	111	111	---	103	---	3380	---	1130	770	---
TOTAL	11869	4047	3799	3278	3573	3825	6642	55427	64040	49140	28192	17087
MEAN	383	135	123	106	123	123	221	1788	2135	1585	909	570
MAX	672	232	132	111	135	135	372	4100	3300	2080	1100	906
MIN	232	92	111	99	112	103	95	239	1310	1130	599	408
AC-FT	23540	8030	7540	6500	7090	7590	13170	109900	127000	97470	55920	33890

CAL YR 1983 TOTAL 223645 MEAN 613 MAX 3560 MIN 92 AC-FT 443600
WTR YR 1984 TOTAL 250919 MEAN 686 MAX 4100 MIN 92 AC-FT 497700

08218500 GOOSE CREEK AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on left bank 0.2 mi downstream from Pierce Creek, 1.0 mi upstream from mouth, 1.0 mi south of Wagonwheel Gap, and 8.8 mi southeast of Creede.

DRAINAGE AREA.--90 mi², approximately.

PERIOD OF RECORD.--June 1954 to current year.

REVISED RECORDS.--WSP 1712: 1955, 1956(M).

GAGE.--Water-stage recorder. Altitude of gage is 8,460 ft, from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Several small diversions above station for irrigation. Lake Humphreys, capacity, 842 acre-ft, with a fixed spillway and no gates has slight effect on flow. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years, 59.7 ft³/s; 43,250 acre-ft/yr

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 879 ft³/s, Sept. 14, 1970, gage height, 4.52 ft, from recorded range in stage, from rating curve extended above 480 ft³/s; minimum daily, 4.5 ft³/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1927 exceeded all other observed floods at this location, including those of October 1911 and June 18, 1949. Flood of October 1911 probably exceeded that of June 18,1949, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, no other peaks above base of 200 ft³/s; minimum daily, 16 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	29	22	22	20	22	30	44	345	120	56	81
2	63	30	22	18	20	24	28	42	304	120	59	68
3	56	26	20	18	22	24	30	42	288	110	54	59
4	51	26	22	22	22	22	30	49	272	105	54	56
5	48	26	22	22	22	20	32	54	246	100	54	52
6	46	25	18	22	20	20	32	54	220	96	72	48
7	45	25	22	22	20	20	32	59	240	92	59	46
8	46	30	22	22	24	22	36	66	230	92	54	44
9	46	22	22	22	22	22	40	92	200	92	49	42
10	45	28	24	22	22	22	38	120	170	92	45	41
11	44	29	24	20	24	24	42	160	170	82	42	41
12	44	28	24	22	22	22	44	200	175	74	42	51
13	44	26	22	20	22	22	48	240	181	66	46	40
14	42	24	22	22	22	22	54	280	204	58	49	37
15	40	19	22	20	24	24	60	320	214	52	48	51
16	39	24	18	20	22	26	66	300	214	54	46	56
17	39	22	18	18	22	24	72	290	184	56	45	54
18	37	26	22	16	22	26	79	300	178	52	63	48
19	36	20	22	18	20	24	77	280	172	50	76	45
20	36	21	22	18	20	24	68	300	172	47	66	44
21	36	24	22	18	20	26	59	400	169	48	61	42
22	34	21	18	20	20	28	54	500	163	48	58	44
23	32	20	24	20	22	24	54	580	152	49	68	42
24	31	20	24	22	22	26	61	640	146	51	76	42
25	32	22	24	22	22	28	66	620	140	49	70	39
26	31	20	24	22	24	28	54	560	170	45	64	37
27	31	20	24	22	20	30	49	500	150	48	59	36
28	31	20	22	22	20	26	46	440	130	49	58	36
29	29	18	18	22	20	28	45	400	125	58	58	35
30	28	20	18	20	---	30	44	350	120	83	54	34
31	29	---	22	20	---	28	---	320	---	64	54	---
TOTAL	1270	711	672	636	624	758	1470	8602	5844	2202	1759	1391
MEAN	41.0	23.7	21.7	20.5	21.5	24.5	49.0	277	195	71.0	56.7	46.4
MAX	79	30	24	22	24	30	79	640	345	120	76	81
MIN	28	18	18	16	20	20	28	42	120	45	42	34
AC-FT	2520	1410	1330	1260	1240	1500	2920	17060	11590	4370	3490	2760

CAL YR 1983 TOTAL 25397 MEAN 69.6 MAX 372 MIN 18 AC-FT 50370
WTR YR 1984 TOTAL 25939 MEAN 70.9 MAX 640 MIN 16 AC-FT 51450

NOTE.--NO GAGE-HEIGHT RECORD NOV. 23 TO APR. 17,

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, CO

LOCATION.--Lat 37°39'25", long 106°38'55", in SW¼NE¼ sec.3, T.39 N., R.3 E., Rio Grande County, Hydrologic Unit 13010001, on left bank near U.S. Highway 160, 700 ft downstream from Church Creek, 0.8 mi southwest of village of South Fork, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--216 mi^2.

PERIOD OF RECORD.--August 1910 to September 1922, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1912, 1944(M). WSP 1632: 1956-58(P).

GAGE.--Water-stage recorder. Datum of gage is 8,221.79 ft, National Geodetic Vertical Datum of 1929. Aug. 9, 1910, to Mar. 28, 1915, nonrecording gage, and Mar. 29, 1915, to Sept. 30, 1922, water-stage recorder, at bridges 1 mi downstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions from Colorado River basin to drainage area above station through Treasure Pass ditch. Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir, capacity, 4,760 acre-ft, and several smaller storage reservoirs. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--60 years (water years 1911-22, 1937-84), 210 ft^3/s; 152,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s, Oct. 5, 1911, gage height, 9.7 ft, from floodmarks, present site and datum, from rating curve extended above 1,500 ft^3/s; minimum daily, 10 ft^3/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeded all other observed floods at this location since at least 1873. Flood of June 29, 1927, reached a stage about 1 ft lower than that of Oct. 5, 1911, from information by local residents.

EX[illegible] FOR CURRENT YEAR.--Maximum discharge, 3,690 ft^3/s at 2330 May 24, gage height, 6.91 ft, only peak above [illegible]00 ft^3/s; minimum daily, 26 ft^3/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	71	48	36	34	48	86	179	1550	347	114	179
2	177	62	50	32	34	54	78	183	1350	340	127	173
3	143	47	48	32	36	54	86	185	1210	301	120	147
4	120	45	50	36	38	50	80	212	1100	268	105	133
5	111	47	46	38	36	40	90	258	1040	240	99	116
6	102	44	40	38	34	40	91	262	936	212	143	99
7	102	43	44	38	34	44	91	278	1020	187	123	94
8	109	49	46	38	42	58	102	295	990	185	127	90
9	104	42	48	40	36	58	125	375	795	189	133	87
10	99	50	50	38	36	70	118	522	715	187	123	83
11	107	50	50	36	42	78	129	700	715	171	116	84
12	109	49	48	40	36	68	131	918	740	153	112	101
13	102	48	46	36	38	70	145	1110	765	143	104	34
14	90	47	44	40	40	70	163	1300	835	129	90	84
15	87	37	44	36	50	78	191	1490	864	114	102	168
16	85	44	40	34	42	86	225	1410	820	121	111	163
17	84	51	40	28	44	82	268	1350	730	133	101	163
18	83	48	42	26	36	84	304	1400	660	118	133	135
19	80	47	44	28	36	82	301	1270	600	109	155	125
20	84	46	44	30	36	82	250	1420	586	102	141	118
21	80	48	42	28	34	86	205	1840	568	104	145	112
22	77	44	38	30	36	90	189	2310	527	104	123	114
23	75	42	54	30	44	66	191	2660	478	112	129	107
24	67	42	54	34	42	78	222	2980	447	116	165	111
25	58	48	54	36	44	82	252	2900	431	112	155	102
26	56	46	52	38	56	82	218	2580	568	104	149	97
27	60	46	50	36	44	86	195	2330	443	104	145	97
28	62	44	44	38	44	76	183	2040	387	112	149	105
29	70	40	34	38	46	84	185	1870	361	133	141	127
30	69	46	34	36	---	86	175	1680	347	121	131	120
31	70	---	38	36	---	80	---	1440	---	116	129	---
TOTAL	2942	1413	1406	1080	1150	2192	5069	39747	22578	4987	3940	3518
MEAN	94.9	47.1	45.4	34.8	39.7	70.7	169	1282	753	161	127	117
MAX	220	71	54	40	56	90	304	2980	1550	347	165	179
MIN	56	37	34	26	34	40	78	179	347	102	90	83
AC-FT	5840	2800	2790	2140	2280	4350	10050	78840	44780	9890	7810	6980

CAL YR 1983 TOTAL 87292 MEAN 239 MAX 1660 MIN 34 AC-FT 173100
WTR YR 1984 TOTAL 90022 MEAN 246 MAX 2980 MIN 26 AC-FT 178600

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO APR. 5.

08220000 RIO GRANDE NEAR DEL NORTE, CO

LOCATION.--Lat 37°41'22", long 106°27'38", in NW¼ sec.29, T.40 N., R.5 E., Rio Grande County, Hydrologic Unit 13010001, on right bank 20 ft downstream from county highway bridge, 6.0 mi west of Del Norte, and 18 mi upstream from Pinos Creek.

DRAINAGE AREA.--1,320 mi^2, approximately.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 763: Drainage area. WSP 1312: 1889, 1901, 1913-14.

GAGE.--Water-stage recorder. Datum of gage is 7,980.25 ft, National Geodetic Vertical Datum of 1929. Prior to May 16, 1908, nonrecording gage at site 4 mi downstream at different datum. May 16, 1908, to Nov. 8, 1910, nonrecording gages on bridge at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Small diversions above station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1912, and Continental Reservoir since 1925, combined capacity, 126,100 acre-ft, and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--95 years, 897 ft^3/s; 649,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, Oct. 5, 1911, gage height, 6.80 ft, from rating curve extended above 12,900 ft^3/s; minimum daily, 69 ft^3/s, Aug. 21, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1873, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,200 ft^3/s at 0630 May 27, gage height, 5.43 ft; minimum daily, 133 ft^3/s, Nov. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	947	340	225	190	180	200	268	481	5330	2730	1240	1100
2	839	320	230	180	180	220	216	494	4870	2700	1260	1150
3	737	259	230	180	190	220	235	481	4450	2430	1210	1070
4	650	246	230	190	190	210	246	527	4180	2110	1090	1060
5	598	238	220	190	190	190	281	620	3820	1890	1080	1000
6	569	238	190	200	180	180	325	658	3640	1970	1240	911
7	555	231	200	200	180	190	325	665	3420	1940	1200	770
8	562	238	210	200	200	210	320	658	3320	1920	1190	697
9	548	238	220	200	190	210	395	804	2750	2060	1180	620
10	520	223	220	190	190	220	356	1090	2430	2190	1070	576
11	500	259	230	180	200	230	401	1730	2340	1950	974	569
12	494	259	230	190	190	220	384	2430	2540	1830	938	635
13	468	250	220	180	200	220	419	3080	2820	1800	938	590
14	437	242	210	190	200	230	443	3700	3340	1920	788	562
15	455	205	210	180	220	240	500	4110	3700	1900	754	628
16	468	205	190	170	190	250	590	3900	3970	1970	745	804
17	455	227	190	150	200	250	705	3360	3680	2000	770	770
18	500	250	205	140	190	260	813	3580	3230	1870	893	729
19	462	235	215	150	180	270	848	3150	3000	1810	1060	673
20	443	198	215	160	180	290	737	3540	3000	1770	1140	620
21	413	242	205	160	180	310	620	4780	2990	1730	1150	583
22	419	195	180	170	190	330	562	5330	2930	1640	1070	583
23	395	133	210	170	200	320	548	5670	2750	1620	1140	562
24	362	141	230	180	200	340	598	5860	2640	1660	1310	583
25	325	201	220	180	200	340	697	5920	2730	1740	1350	555
26	320	227	210	190	210	286	605	6450	2930	1740	1330	520
27	373	246	210	180	190	305	514	6820	2840	1710	1250	507
28	401	219	190	190	190	259	514	6400	2770	1740	1220	514
29	413	210	170	190	190	272	520	6060	2730	1370	1200	548
30	373	220	180	180	---	281	481	5790	2790	1390	1050	534
31	330	---	180	180	---	250	---	5280	---	1310	956	---
TOTAL	15331	6935	6475	5580	5570	7803	14466	103418	97930	58410	33786	21023
MEAN	495	231	209	180	192	252	482	3336	3264	1884	1090	701
MAX	947	340	230	200	220	340	848	6820	5330	2730	1350	1150
MIN	320	133	170	140	180	180	216	481	2340	1310	745	507
AC-FT	30410	13760	12840	11070	11050	15480	28690	205100	194200	115900	67010	41700

CAL YR 1983 TOTAL 340054 MEAN 932 MAX 5560 MIN 133 AC-FT 674500
WTR YR 1984 TOTAL 376727 MEAN 1029 MAX 6820 MIN 133 AC-FT 747200

08224110 SAN LUIS CREEK NEAR PONCHA PASS, CO

LOCATION.--Lat 38°24'22", long 106°03'49", in NE¼NE¼ sec.22, T.48 N., R.8 E., Saguache County, Hydrologic Unit 13010003, on right bank 0.1 mi east of U.S. Highway 285, 0.5 mi upstream from Round Hill Gulch, 1.3 mi downstream from Dorsey Creek, and 1.7 mi southeast of Poncha Pass.

DRAINAGE AREA.--6.57 mi^2.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,780 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

Average Discharge.--5 years, 1.01 ft^3/s; 732 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45 ft^3/s, July 26, 1982, gage height, unknown; maximum gage height, 1.23 ft, May 12, 1984; minimum daily discharge, 0.03 ft^3/s, Aug.8, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.8 ft^3/s at 2100 May 12, gage height, 1.23 ft, only peak above base of 5.0 ft^3/s; minimum daily, 0.15 ft^3/s, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.59	.65	.88	.86	.86	1.1	1.7	2.4	1.1	.90	.80
2	.54	.57	.55	.90	.86	.86	1.1	1.5	2.3	1.1	.92	.73
3	.48	.56	.50	.90	.86	.86	1.1	1.8	2.3	1.0	.96	.70
4	.49	.57	.50	.89	.86	.86	1.2	2.1	2.0	.97	.80	.64
5	.48	.58	.46	.88	.86	.86	1.2	1.9	1.8	.93	.81	.60
6	.50	.60	.46	.88	.86	.86	1.3	1.9	1.7	.93	.94	.57
7	.45	.58	.46	.87	.86	.86	1.4	1.8	1.7	.93	.98	.57
8	.22	.61	.52	.86	.86	.87	1.4	2.1	1.6	.90	.93	.59
9	.18	.66	.60	.86	.86	.87	1.5	2.5	1.6	1.1	.74	.57
10	.18	.70	.64	.85	.86	.88	1.6	3.1	1.5	1.1	.71	.55
11	.15	.72	.68	.85	.86	.89	1.7	3.6	1.4	.91	.67	.64
12	.16	.74	.68	.84	.86	.90	1.6	4.2	1.4	.84	.70	.71
13	.18	.74	.70	.84	.86	.91	1.6	4.4	1.3	1.2	.73	.55
14	.19	.72	.68	.84	.86	.92	1.7	5.2	1.3	1.1	.65	.55
15	.21	.70	.66	.84	.86	.94	1.8	4.6	1.3	.93	.62	.62
16	.35	.70	.66	.84	.86	.95	1.9	4.7	1.4	.98	.61	.84
17	.42	.70	.66	.84	.86	.96	2.2	4.6	1.3	.90	.62	.75
18	.48	.70	.66	.84	.86	.97	2.5	4.4	1.4	.84	.75	.65
19	.50	.72	.66	.84	.86	.98	2.7	4.1	1.4	.82	1.2	.53
20	.50	.75	.66	.84	.86	.99	2.7	4.1	1.3	.78	.89	.56
21	.51	.74	.72	.84	.86	1.0	2.7	4.4	1.3	.72	1.0	.56
22	.50	.72	.80	.84	.86	1.0	2.7	4.6	1.3	.65	.93	.59
23	.52	.70	.90	.84	.86	1.1	2.6	4.4	1.4	.65	1.0	.62
24	.51	.68	.96	.84	.86	1.1	2.2	4.4	1.3	.68	1.7	.61
25	.53	.66	1.0	.84	.86	1.1	1.9	4.3	1.4	.73	.97	.56
26	.53	.64	.95	.85	.86	1.1	1.8	3.9	1.4	.78	.94	.64
27	.57	.62	.88	.85	.86	1.1	1.7	3.6	1.3	.88	.84	.78
28	.62	.60	.86	.85	.86	1.1	1.2	3.5	1.2	.79	.75	.69
29	.52	.55	.86	.85	.86	1.1	1.5	3.2	1.2	.90	.72	.75
30	.53	.55	.86	.85	---	1.1	1.3	2.8	1.2	.77	.69	.74
31	.57	---	.36	.85	---	1.1	---	2.5	---	.81	.72	---
TOTAL	13.09	19.67	21.69	26.48	24.94	29.95	52.9	105.9	45.4	27.72	26.39	19.26
MEAN	.42	.66	.70	.85	.86	.97	1.76	3.42	1.51	.89	.85	.64
MAX	.62	.75	1.0	.90	.86	1.1	2.7	5.2	2.4	1.2	1.7	.84
MIN	.15	.55	.46	.84	.86	.86	1.1	1.5	1.2	.65	.61	.53
AC-FT	26	39	43	53	49	59	105	210	90	55	52	38

CAL YR 1983 TOTAL 303.07 MEAN .83 MAX 3.3 MIN .15 AC-FT 601
WTR YR 1984 TOTAL 413.39 MEAN 1.13 MAX 5.2 MIN .15 AC-FT 820

NOTE.--NO GAGE-HEIGHT RECORD NOV. 12 - APR. 22.

08224113 SAN LUIS CREEK ABOVE VILLA GROVE, CO

LOCATION.--Lat 38°24'04", long 106°03'51", in SE¼NE¼ sec.22, T.47 S., R.8 E., Saguache County, Hydrologic Unit 13010003, on right bank 600 ft east of U.S. Highway 285, 0.2 mi upstream from Round Hill Gulch, 1.1 mi upstream from Lone Tree Creek, and 11.3 mi northwest of Villa Grove.

DRAINAGE AREA.--11.2 mi^2.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,710 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair, and those for period Dec. 6 to Apr. 22 and those above 4.0 ft^3/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44 ft^3/s, July 26, 1982, gage height, 2.27 ft, from rating curve extended above 8.0 ft^3/s; minimum daily, 0.17 ft^3/s, Aug. 5, 6, 1981, Oct. 11, 12, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.3 ft^3/s at 2145 May 12, gage height, 1.41 ft, only peak above base of 5.0 ft^3/s; minimum daily, 0.17 ft^3/s, Oct. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.51	.41	.95	.90	.79	.83	1.9	2.6	1.2	.92	.74
2	.64	.51	.44	.98	.90	.79	.84	1.6	2.5	1.0	.94	.69
3	.58	.51	.44	1.0	.90	.78	.88	2.0	2.5	1.0	.98	.67
4	.53	.52	.44	1.0	.89	.78	.92	2.3	2.2	.95	.82	.67
5	.53	.52	.41	1.0	.88	.78	1.0	2.1	2.0	.91	.84	.65
6	.56	.54	.41	1.0	.88	.78	1.1	1.9	1.9	.93	.96	.63
7	.51	.52	.41	1.0	.88	.78	1.2	1.7	1.9	.92	1.0	.62
8	.31	.56	.50	1.0	.87	.77	1.3	1.9	1.8	.99	.94	.63
9	.23	.48	.54	1.0	.87	.77	1.4	2.4	1.7	1.2	.76	.61
10	.23	.60	.58	1.0	.86	.77	1.6	3.1	1.7	.88	.72	.60
11	.17	.62	.62	1.0	.86	.77	1.8	3.4	1.6	1.2	.70	.65
12	.17	.63	.64	1.0	.86	.77	1.7	4.0	1.6	1.1	.72	.69
13	.21	.65	.64	1.0	.85	.77	1.7	4.7	1.5	.86	.75	.64
14	.21	.60	.62	.99	.84	.77	1.9	5.4	1.5	.90	.68	.64
15	.21	.60	.60	.98	.84	.77	2.0	5.3	1.5	.83	.63	.68
16	.31	.59	.60	.98	.84	.77	2.3	5.5	1.6	.77	.61	.85
17	.38	.60	.60	.98	.83	.77	3.0	5.1	1.5	.74	.62	.79
18	.41	.60	.60	.97	.83	.77	3.4	4.5	1.5	.70	.75	.71
19	.42	.62	.60	.96	.82	.77	3.5	3.9	1.5	.63	1.2	.66
20	.45	.64	.60	.96	.82	.78	3.6	3.8	1.5	.56	.80	.68
21	.47	.62	.62	.95	.82	.78	3.7	4.3	1.5	.54	1.1	.69
22	.44	.60	.70	.95	.81	.78	3.7	4.3	1.4	.58	.89	.70
23	.46	.57	.80	.94	.81	.78	3.3	4.1	1.5	.56	.97	.72
24	.45	.52	.90	.94	.81	.78	2.6	4.1	1.4	.65	1.7	.72
25	.46	.51	1.0	.93	.80	.78	2.0	4.1	1.5	.78	.98	.70
26	.47	.51	.98	.93	.80	.78	1.4	3.8	1.5	.92	.95	.73
27	.49	.49	.92	.92	.80	.78	1.4	3.6	1.4	.92	.84	.78
28	.56	.44	.86	.92	.80	.80	1.1	3.6	1.2	.81	.75	.75
29	.48	.41	.86	.92	.80	.80	1.6	3.4	1.2	.94	.72	.77
30	.47	.41	.88	.91	---	.82	1.4	3.1	1.2	.81	.68	.76
31	.50	---	.90	.90	---	.82	---	2.7	---	.84	.69	---
TOTAL	12.93	16.50	20.12	29.96	24.47	24.20	58.17	107.6	49.9	26.62	26.61	20.82
MEAN	.42	.55	.65	.97	.84	.78	1.94	3.47	1.66	.86	.86	.69
MAX	.64	.65	1.0	1.0	.90	.82	3.7	5.5	2.6	1.2	1.7	.85
MIN	.17	.41	.41	.90	.80	.77	.83	1.6	1.2	.54	.61	.60
AC-FT	26	33	40	59	49	48	115	213	99	53	53	41

CAL YR 1983 TOTAL 312.24 MEAN .86 MAX 5.7 MIN .17 AC-FT 619
WTR YR 1984 TOTAL 417.90 MEAN 1.14 MAX 5.5 MIN .17 AC-FT 829

NOTE.--NO GAGE-HEIGHT RECORD DEC. 6 TO APR. 22.

08226600 NOLAND GULCH TRIBUTARY RESERVOIR INFLOW NEAR VILLA GROVE, CO

LOCATION.--Lat 38°12'34", long 105°57'40", in NW¼SE¼ sec.27, T.46 N., R.9 E., Saguache County, Hydrologic Unit 13010003, on left bank at inflow site to a small channel reservoir 500 ft upstream from dam, 1.2 mi west along Bureau of Land Management road exiting U.S. Highway 285, and 2.7 mi south of Villa Grove.

DRAINAGE AREA.--0.08 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Altitude of gage is 8,000 ft, from topographic map.

REMARKS.--Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2.1 ft^3/s, Sept. 30, 1982, gage height, 3.65 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for current season.

08227300 ANACONDA RESERVOIR NEAR VILLA GROVE, CO

LOCATION.--Lat 38°08'48", long 106°00'36", in SW¼SW¼ sec.17, T.45 N., R.9 E., Saguache County, Hydrologic Unit 13010004, on top of earthfill dam near center, 0.4 mi upstream from Stonehouse Gulch, 0.5 mi upstream from Big Hollow Gulch, 1.5 mi north of junction of Bureau of Land Management road and U.S. Highway 285 and 7.7 mi south of Villa Grove.

DRAINAGE AREA.--0.17 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder. Altitude of gage is 8,025 ft, from topographic map.

REMARKS.--Records good. Reservoir is formed by an earthfill dam. Storage occurs intermittenly from storm runoff. Maximum storage is 4.97 acre-feet at a spillway gage height of 13.3 ft. No contents occur at a gage height of 3.34 ft. This dam forms a small channel reservoir for controlling heavy runoff and to help control sedimentation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 0.71 acre-ft, Sept.30, 1982, gage height, 7.45 ft; no contents most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 0.03 acre-ft at 2330 Aug. 23, gage height, 3.89 ft; no contents most of time.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3.3	0
5.6	0.20

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

Aug. 23 0.03 Aug. 24 0.02

08227400 TRACY PIT RESERVOIR INFLOW NEAR SAGUACHE, CO

LOCATION.--Lat 38°02'44", long 106°13'06", in SE¼SE¼ sec.20, T.44 N., R.7 E., Saguache County, Hydrologic Unit 13010004, on left bank 0.5 mi upstream from mouth at North Tracy Canyon, 5.1 mi southwest of Saguache, and 5.4 mi northwest of U.S. Highway 285 at Swede Corners.

DRAINAGE AREA.--0.05 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Altitude of gage is 8,190 ft, from topographic map.

REMARKS.--Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4.3 ft^3/s, Aug. 25, 1982, gage height, 4.05 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.3 ft^3/s at 1745 Aug. 17, gage height, 3.88 ft; no flow most of time

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

July 9	0.03	Aug. 20	0.02
Aug. 17	.04	Aug. 21	.02

08238350 YELLOW WARBLER RESERVOIR INFLOW NEAR ANTONITO, CO

LOCATION.--Lat 37°06'00", long 106°06'44", in NE¼SE¼ sec.17, T.33 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank, 400 ft upstream from Yellow Warbler Dam, 0.4 mi south of the geologic basin known as The Poso, and 6.0 mi west of Antonito.

DRAINAGE AREA.--0.18 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,380 ft, from topographic map.

REMARKS.--Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft^3/s, Aug. 16, 1982, gage height, 4.97 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.24 ft^3/s at 1330 Aug. 22, gage height, 3.13 ft, only flow this season, (mean daily discharge for Aug. 22, was 0.0 ft^3/s).

08238380 TURKEY RESERVOIR INFLOW NEAR CONEJOS, CO

LOCATION.--Lat 37°08'15", long 106°06'41", in SE¼SE¼ sec,32, T.34 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank 300 ft upstream from Turkey Dam, 0.4 mi upstream from mouth at the geologic basin known as The Poso, and 6.2 mi northwest of Conejos.

DRAINAGE AREA.--0.24 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,280 ft, from topographic map.

REMARKS.--Records good. Recording rain gage in basin upstream. This station is designed to evaluate rainfall-runoff from small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.5 ft^3/s, Aug. 11, 1981, gage height, 4.16 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.6 ft^3/s at 2315 Aug. 18, gage height, 3.42 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

Aug.18	0.05	Aug. 19	0.01

08238400 BOBOLINK RESERVOIR NEAR CONEJOS, CO

LOCATION.--Lat 37°09'10", long 106°10'18", in SW¼SE¼ sec.26, T.34 N., R.7 E., Conejos County, Hydrologic Unit 13010002, on top of earthfill dam near Center, 0.7 mi southeast of Flat Top Mountain, 5.3 mi north of Los Mogotes Peaks and 9.4 mi northwest of Conejos.

DRAINAGE AREA.--0.23 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder. Altitude of gage is 8,800 ft, from topographic map.

REMARKS.--Records good . Reservoir is formed by an earthfill dam. Storage occurs intermittenly from storm runoff. Maximum storage is 1.0 acre-ft, at a spillway gage height of 7.1 ft. No contents occur at a gage height of 3.42 ft. This dam forms a small channel reservoir for controlling heavy runoff and to help control sedimentation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2.4 acre-ft, Sept. 9, 1982, gage height, 9.13 ft; no contents most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1.1 acre-ft at 2400 July 15, gage height, 7.20 ft; no contents Oct. 1-19, May 1 to July 8, and Sept. 20-30.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3.5	0.01	5.5	0.25
4.5	0.06	6.5	0.67

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						---	0	0	.00	.15	.09
2	0						---	0	0	.00	.15	.08
3	0						---	0	0	.00	.13	.07
4	0						---	0	0	.00	.11	.06
5	0						---	0	0	.00	.10	.06
6	0						---	0	0	.00	.09	.05
7	0						---	0	0	.00	.08	.04
8	0						---	0	0	.00	.08	.04
9	0						---	0	0	.20	.07	.03
10	0						---	0	0	.19	.06	.02
11	0						---	0	0	.18	.05	.02
12	0						---	0	0	.15	.04	.02
13	0						---	0	0	.13	.04	.02
14	0						---	0	0	.12	.03	.02
15	0						---	0	0	1.10	.02	.02
16	0						---	0	0	.91	.02	.02
17	0						---	0	0	.78	.04	.01
18	0						---	0	0	.69	.03	.01
19	0						---	0	0	.61	.04	.01
20	---						---	0	0	.54	.04	.00
21	---						---	0	0	.47	.03	.00
22	---						---	0	0	.43	.03	.00
23	---						---	0	0	.39	.02	.00
24	---						---	0	0	.33	.02	.00
25	---						.05	0	0	.30	.02	.00
26	---						.04	0	0	.28	.10	.00
27	---						.02	0	0	.24	.09	.00
28	---						.02	0	0	.21	.08	.00
29	---						.01	0	0	.23	.07	.00
30	---						.01	0	0	.20	.06	.00
31	---						---	0	---	.18	.09	---
MAX	---						---	.00	.00	1.1	.15	.09
MIN	---						---	.00	.00	.00	.02	.00

08240000 RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, CO

LOCATION.--Lat 37°18'58", long 105°44'32", in sec.35, T.36 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank 0.2 mi upstream from Trinchera Creek, 3.2 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--5,740 mi², approximately, includes 2,940 mi² in closed basin in northern part of San Luis Valley, Co.

PERIOD OF RECORD.--May 1936 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,500 ft, estimated from nearby level lines.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years, 243 ft³/s; 176,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,470 ft³/s, June 21, 1949, gage height, 9.50 ft, from rating curve extended above 3,600 ft³/s; minimum daily, 0.4 ft³/s, July 4, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s at 0330 May 31, gage height, 6.64 ft; minimum daily, 34 ft³/s, Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	78	160	175	170	200	480	456	1600	360	124	114
2	36	84	170	185	170	210	460	370	1330	360	104	94
3	73	80	185	180	170	225	450	263	1220	365	100	108
4	52	80	185	170	175	185	440	214	995	340	103	136
5	48	80	200	175	170	220	429	182	718	285	114	149
6	54	78	195	190	175	235	432	179	531	242	115	159
7	58	78	170	200	180	220	453	194	423	272	117	151
8	55	78	175	195	190	225	477	196	368	275	128	158
9	43	80	180	195	195	225	474	186	322	239	103	136
10	42	80	205	195	195	225	471	180	310	263	103	132
11	48	85	215	190	200	225	501	199	251	263	110	120
12	49	88	210	195	205	245	486	214	228	248	88	101
13	43	85	205	200	205	250	510	325	288	228	76	93
14	55	89	200	180	200	295	492	360	239	239	72	91
15	60	88	170	195	210	315	513	516	228	270	62	91
16	57	90	185	195	215	330	525	622	211	282	57	86
17	53	89	180	190	225	390	561	784	239	295	55	86
18	52	89	190	195	220	385	390	784	362	308	63	111
19	56	85	205	190	225	440	350	510	328	290	70	118
20	55	93	205	190	220	460	638	447	282	278	83	117
21	47	60	210	170	220	560	802	365	335	248	149	110
22	43	80	210	165	220	450	784	418	370	211	186	105
23	46	65	205	170	210	540	690	730	438	180	199	105
24	45	70	230	165	220	695	600	950	418	152	194	96
25	51	65	245	165	220	605	459	1070	388	115	203	90
26	40	55	255	170	205	596	372	1200	429	103	285	83
27	40	55	180	175	210	560	398	1340	426	86	288	79
28	45	100	235	170	220	545	360	1430	390	80	263	73
29	52	125	215	180	210	510	370	1630	380	74	228	72
30	52	150	205	180	---	486	429	1760	362	77	179	77
31	67	---	180	170	---	486	---	1780	---	101	144	---
TOTAL	1561	2502	6160	5660	5850	11538	14796	19854	14409	7129	4165	3241
MEAN	50.4	83.4	199	183	202	372	493	640	480	230	134	108
MAX	73	150	255	200	225	695	802	1780	1600	365	288	159
MIN	34	55	160	165	170	185	350	179	211	74	55	72
AC-FT	3100	4960	12220	11230	11600	22890	29350	39380	28580	14140	8260	6430

CAL YR 1983 TOTAL 90860 MEAN 249 MAX 1450 MIN 21 AC-FT 180200
WTR YR 1984 TOTAL 96865 MEAN 265 MAX 1780 MIN 34 AC-FT 192100

NOTE.--NO GAGE-HEIGHT RECORD JAN. 9 TO MAR. 13.

BEST COP VAILABLE

08244500 PLATORO RESERVOIR AT PLATORO, CO

LOCATION.--Lat 37°21'07", long 106°32'38", Conejos County, Hydrologic Unit 13010005, on right bank in valvehouse, 400 ft downstream from Platoro Dam on Conejos River and 0.7 mi west of Platoro.

DRAINAGE AREA.--40 mi², approximately.

PERIOD OF RECORD.--November 1951 to current year.

GAGE.--Nonrecording gage. Datum of gage is 9,911.5 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Prior to June 9, 1955, nonrecording gage at present site and datum. June 9, 1955 to Sept. 30, 1959, water-stage recorder in gate chamber at dam for elevations above 9,921.0 ft, at same datum.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes. Dam completed Dec. 9, 1951; storage began Nov. 7, 1951. Capacity of reservoir (based on revised capacity table put in use Jan. 1, 1975), 59,570 acre-ft, between elevations 9,911.5 ft, sill of trashrack at outlet, and 10,034.0 ft, crest of spillway. No dead storage. Reservoir is used for irrigation and flood control. Figures given are usable contents.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 61,420 acre-ft, June 9, 11, 1958, elevation, 10,035.5 ft; no contents for long periods in 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,320 acre-ft, June 3, July 9, and Oct. 19, elevation, 10,004.6 ft; minimum contents, 13,950 acre-ft, Apr. 3, elevation, 9,971.5 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1000, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,972.5	14,440	-
Oct. 31	10,004.2	34,020	+19,580
Nov. 30	10,004.3	34,100	+80
Dec. 31	10,004.2	34,020	-80
CAL YR 1983			+19,720
Jan. 31	9,971.9	14,150	-19,870
Feb. 29	9,972.1	14,250	+100
Mar. 31	9,972.0	14,200	-50
Apr. 30	9,972.0	14,200	0
May 31	10,003.9	33,800	+19,600
June 30	10,004.2	34,020	+220
July 31	10,004.2	34,020	0
Aug. 31	10,004.2	34,020	0
Sept. 30	10,004.2	34,020	0
WTR YR 1984			+19,580

08245000 CONEJOS RIVER BELOW PLATORO RESERVOIR, CO

LOCATION.--Lat 37°21'18", long 106°32'37", Conejos County, Hydrologic Unit 13010005, on left bank 1,100 ft downstream from valvehouse for Platoro Reservoir and 0.7 mi northwest of Platoro.

DRAINAGE AREA.--40 mi^2, approximately.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 9,866.60 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. No diversion above station. Flow completely regulated by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--32 years, 90.8 ft^3/s; 65,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft^3/s, Nov. 1, 1957, gage height, 4.02 ft; maximum gage height, 4.29 ft, June 15, 1958; no flow Oct. 16-20, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 825 ft^3/s at 1600 June 3, gage height, 3.43 ft; minimum daily, 4.0 ft^3/s, Feb. 9-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	24	22	10	10	9.0	45	42	654	418	58	142
2	194	36	22	10	10	9.0	45	28	636	414	50	82
3	90	30	22	10	10	9.0	45	28	795	354	40	67
4	63	18	23	10	10	9.0	12	36	700	329	40	66
5	80	13	18	10	10	9.0	5.0	44	663	224	41	59
6	68	13	10	10	10	9.0	5.0	44	454	176	129	35
7	54	13	10	10	10	9.0	5.0	37	350	176	112	18
8	56	13	10	10	6.0	9.0	5.0	32	386	188	39	16
9	56	13	10	10	4.0	9.0	5.0	46	230	276	39	16
10	56	13	10	10	4.0	9.0	5.0	61	239	318	39	19
11	60	13	10	10	4.0	9.0	5.0	177	390	266	39	42
12	61	13	10	10	4.0	9.0	5.0	336	454	161	32	54
13	50	13	10	10	4.0	9.0	5.0	454	550	121	29	38
14	42	18	10	10	4.0	9.0	5.0	398	676	144	29	21
15	42	24	10	10	4.0	9.0	5.0	172	700	142	47	29
16	42	24	10	10	4.0	9.0	5.0	51	681	142	66	92
17	31	20	10	10	4.0	9.0	48	52	578	142	42	65
18	23	18	10	10	4.0	9.0	48	116	438	118	87	42
19	23	18	10	10	4.0	9.0	48	245	442	109	69	42
20	23	18	10	10	4.0	9.0	66	304	474	97	82	31
21	31	18	10	10	4.0	9.0	90	406	542	63	74	27
22	42	17	10	10	4.0	9.0	90	340	578	56	59	27
23	42	17	10	10	4.0	9.0	90	83	506	77	76	27
24	35	17	10	10	8.0	9.0	62	14	379	86	[illegible]	27
25	20	18	10	10	9.0	9.0	33	14	446	74	66	27
26	9.2	18	10	10	9.0	9.0	33	14	506	57	85	27
27	9.2	18	10	10	9.0	17	42	185	528	57	95	27
28	13	18	10	10	9.0	20	61	322	454	57	82	27
29	16	19	10	10	9.0	20	61	502	284	58	63	27
30	16	22	10	10	---	40	59	600	294	58	58	27
31	16	---	10	10	---	45	---	725	---	58	70	---
TOTAL	1532.4	547	367	310	189.0	376.0	1038.0	5908	15007	5016	1951	1246
MEAN	49.4	18.2	11.8	10.0	6.52	12.1	34.6	191	500	162	62.9	41.5
MAX	194	36	23	10	10	45	90	725	795	418	129	142
MIN	9.2	13	10	10	4.0	9.0	5.0	14	230	56	29	16
AC-FT	3040	1080	728	615	375	746	2060	11720	29770	9950	3870	2470

CAL YR 1983 TOTAL 44432.6 MEAN 122 MAX 720 MIN 6.0 AC-FT 88130
WTR YR 1984 TOTAL 33487.4 MEAN 91.5 MAX 795 MIN 4.0 AC-FT 66420

NOTE.--NO GAGE-HEIGHT RECORD DEC. 5 TO APR. 16.

08246500 CONEJOS RIVER NEAR MOGOTE, CO

LOCATION.--Lat 37°03'14", long 106°11'13", in SE¼SE¼ sec.34, T.33 N., R.7 E., Conejos County, Hydrologic Unit 13010005, on right bank 25 ft upstream from bridge on State Highway 174, 0.4 mi downstream from Fox Creek, 5.3 mi west of Mogote, and 10 mi west of Antonito.

DRAINAGE AREA.--282 mi^2.

PERIOD OF RECORD.--April 1903 to October 1905, October 1911 to current year. Monthly discharge only for some periods, published in WSP 1312. Records for March 1900 at site 5.5 mi upstream and May 1905 to September 1911 (some missing periods most years) at site 3.2 mi upstream not equivalent to present site due to inflow.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1903-5, 1913. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 8,271.54 ft, Colorado State Highway datum. Apr. 17, 1903, to Oct. 31, 1905, nonrecording gage 500 ft downstream at different datum. Oct. 5, 1911, to early 1915, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 500 acres of hay meadows above station. Some regulation by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--75 years, 332 ft^3/s; 240,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s, Oct. 5, 1911, gage height, 8.50 ft, from floodmarks, present site and datum, from rating curve extended above 3,100 ft^3/s; minimum daily determined, 10 ft^3/s, July 18, 1904.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1854, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,820 ft^3/s at 0630 May 25, gage height, 5.19 ft; minimum daily, 50 ft^3/s, Jan. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	79	74	70	54	60	136	208	2590	785	174	187
2	364	84	78	64	54	62	116	201	2010	880	174	212
3	271	93	76	60	54	68	119	212	2100	740	174	158
4	194	86	80	62	54	72	106	278	1980	700	151	148
5	177	79	68	62	54	66	98	364	1650	579	151	142
6	190	72	64	62	54	64	111	376	1460	480	278	125
7	170	72	68	64	54	68	114	396	1120	440	336	101
8	161	75	70	64	56	72	114	408	1040	440	218	82
9	161	70	72	64	56	76	139	520	900	520	167	75
10	160	68	75	64	54	79	128	720	825	530	148	74
11	158	75	72	64	52	82	148	900	915	530	136	75
12	158	75	75	62	52	77	139	1240	1180	416	131	98
13	154	75	70	62	54	79	158	1520	1270	336	128	101
14	148	75	64	64	56	84	177	1730	1650	340	122	88
15	139	62	62	60	58	88	204	1760	1680	324	119	82
16	134	62	60	56	56	91	243	1490	1790	360	134	96
17	136	66	58	56	58	88	320	1420	1540	392	139	161
18	125	79	64	54	56	88	396	1440	1280	328	174	116
19	116	75	68	50	54	86	404	1550	1110	285	250	101
20	114	70	68	50	52	106	313	1750	1120	264	198	98
21	106	66	66	50	52	119	282	2020	1190	236	204	88
22	111	62	57	52	52	128	254	2360	1260	204	184	86
23	116	60	59	52	54	111	260	2360	1140	198	184	84
24	114	60	60	52	54	106	332	2430	980	226	212	84
25	106	65	62	54	56	114	376	2410	975	215	212	82
26	88	65	64	56	58	109	282	2160	1070	187	190	79
27	72	62	66	56	56	111	229	2030	1130	180	212	84
28	72	59	66	56	58	101	229	2100	1020	190	208	82
29	72	60	58	56	58	98	218	2070	815	198	174	79
30	75	65	56	54	---	101	201	2270	710	194	158	79
31	77	---	66	54	---	109	---	2180	---	198	145	---
TOTAL	4535	2116	2066	1806	1590	2763	6346	42873	39500	11895	5585	3147
MEAN	146	70.5	66.6	58.3	54.8	89.1	212	1383	1317	384	180	105
MAX	364	93	80	70	58	128	404	2430	2590	880	336	212
MIN	72	59	56	50	52	60	98	201	710	180	119	74
AC-FT	9000	4200	4100	3580	3150	5480	12590	85040	78350	23590	11080	6240

CAL YR 1983 TOTAL 136822 MEAN 375 MAX 2420 MIN 53 AC-FT 271400
WTR YR 1984 TOTAL 124222 MEAN 339 MAX 2590 MIN 50 AC-FT 246400

08247500 SAN ANTONIO RIVER AT ORTIZ, CO

LOCATION.--Lat 36°59'35", long 106°02'17", in NE¼SE¼ sec.24, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 800 ft south of Colorado-New Mexico State line, 0.4 mi southeast of Ortiz, and 0.4 mi upstream from Los Pinos River.

DRAINAGE AREA.--110 mi², approximately.

PERIOD OF RECORD.--April 1919 to October 1920, October 1924 to current year (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1732: 1951. WSP 1923: 1927 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 7,970 ft, from topographic map. Prior to Apr. 7, 1926, nonrecording gage at various locations near present site, at different datums Apr. 7, 1926, to June 24, 1954, water-stage recorder at site 200 ft downstream, at present datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are fair. A few small diversions above station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--44 years (1940-84), 25.1 ft³/s; 18,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, Apr. 15, 1937, gage height, 5.38 ft, from rating curve extended above 1,100 ft³/s; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 612 ft³/s at 0500 May 15, gage height, 4.24 ft, only peak above base of 330 ft³/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.0	3.8	4.0	4.0	4.0	11	66	44	2.8	4.5	.30
2	3.2	3.2	4 0	3.5	4.0	4.0	10	84	43	5.0	3.8	.15
3	3.0	3.0	4.0	3.5	4.0	4.5	12	121	34	3.2	4.5	.10
4	2.4	3.0	4.5	4.0	4.0	4.5	8.2	180	30	2.0	4.5	.04
5	2.0	3.0	4.0	4.0	4.0	4.0	9.3	260	28	1.3	2.6	.00
6	1.6	3.0	3.5	4.0	4.0	4.0	12	265	40	.80	1.6	.00
7	1.3	3.0	3.5	4.0	4.0	4.0	20	242	27	.40	1.6	.00
8	1.4	3.0	3.5	4.0	4.5	4.0	28	248	25	.10	2.6	.00
9	1.8	3.0	4.0	4.0	4.5	4.5	37	292	20	2.0	2.0	.00
10	1.8	3.0	4.0	4.0	4.5	4.5	36	371	16	4.5	1.3	.00
11	2.0	3.0	4.0	4.0	4.5	4.5	43	419	15	1.3	.90	.00
12	2.0	3.4	4.0	4.0	4.0	4.5	31	452	13	.80	.70	.00
13	1.8	3.4	4.0	4.0	4.5	4.5	44	452	10	4.0	.50	.00
14	1.8	3.6	4.0	4.5	4.5	5.0	60	431	9.7	3.0	.30	.00
15	2.8	3.4	4.0	4.0	4.5	5.0	83	449	10	2.0	.30	.00
16	3.6	3.0	3.5	4.0	4.5	5.0	104	419	9.7	1.3	.50	.00
17	3.2	2.6	3.5	4.0	4.5	5.0	152	344	8.9	1.2	.60	.00
18	3.0	3.8	4.0	3.5	4.5	5.0	190	272	7.8	1.2	5.3	.00
19	3.0	4.2	4.5	3.0	4.0	5.0	188	222	6.1	.90	4.2	.00
20	3.0	3.8	4.5	3.0	4.0	7.0	121	185	4.5	.40	5.0	.00
21	3.0	4.0	4.0	3.0	4.0	9.0	76	178	4.5	.15	3.8	.00
22	3.0	3.4	4.0	3.5	4.0	9.0	64	168	3.2	.00	2.8	.00
23	2.8	3.2	4.5	3.5	4.5	8.0	88	146	2.4	.00	2.4	.00
24	2.6	3.0	5.0	3.5	4.5	10	155	132	2.0	.00	3.4	.00
25	2.6	3.0	5.0	4.0	4.5	12	178	111	2.0	.00	3.0	.00
26	2.8	3.0	5.0	4.5	5.0	11	106	90	2.2	.00	2.2	.00
27	2.8	2.8	5.0	4.5	4.0	8.9	70	75	2.4	.00	1.6	.00
28	2.8	2.6	4.0	4.5	4.0	8.0	61	62	3.6	.00	1.4	.00
29	2.8	2.6	3.5	4.5	4.0	12	59	53	2.4	1.3	1.4	.00
30	3.0	3.2	3.5	4.0	---	13	50	50	2.0	5.0	.80	.00
31	3.0	---	3.5	4.0	---	12	---	45	---	4.8	.50	---
TOTAL	77.7	95.2	125.8	120.5	123.5	205.4	2106.5	6884	428.4	49.45	70.60	.59
MEAN	2.51	3.17	4.06	3.89	4.26	6.63	70.2	222	14.3	1.60	2.28	.020
MAX	3.6	4.2	5.0	4.5	5.0	13	190	452	44	5.0	5.3	.30
MIN	1.3	2.6	3.5	3.0	4.0	4.0	8.2	45	2.0	.00	.30	.00
AC-FT	154	189	250	239	245	407	4180	13650	850	98	140	1.2

CAL YR 1983	TOTAL	13066.48	MEAN	35.8	MAX	401	MIN	.00	AC-FT	25920
WTR YR 1984	TOTAL	10287.64	MEAN	28.1	MAX	452	MIN	.00	AC-FT	20410

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO MAR. 26.

08248000 LOS PINOS RIVER NEAR ORTIZ, CO

LOCATION.--Lat 36°58'56", long 106°04'23", on line between secs.26 and 27, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 0.9 mi south of Colorado-New Mexico State line, 2.1 mi southwest of Ortiz, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--167 mi².

PERIOD OF RECORD.--January 1915 to December 1920, October 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,040 ft, from topographic map. Prior to Apr. 15, 1955, at site 350 ft upstream at datum 2.52 ft, higher.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are fair. Diversions above station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--65 years, 120 ft³/s; 86,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft³/s, May 12, 1941, gage height, 5.77 ft, site and datum then in use, from rating curve extended above 1,600 ft³/s; minimum observed, 4.0, ft³/s Dec. 17, 1945 (discharge measurement) but may have been less during periods of no gage-height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	0100	1,700	*6.13	May 23	0030	*1,790	6.03

Minimum daily discharge, 15 ft³/s, Jan. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	24	24	23	17	17	33	142	840	140	43	35
2	72	23	25	21	17	18	32	180	765	130	38	32
3	59	22	25	20	17	20	30	205	661	114	49	29
4	44	22	26	21	17	20	30	282	580	105	34	27
5	39	22	22	21	17	17	33	436	607	91	37	24
6	36	21	20	21	17	16	41	456	572	84	61	24
7	35	21	18	22	17	17	47	452	500	79	72	22
8	33	20	20	22	18	18	48	488	432	71	49	21
9	33	17	21	22	18	19	61	607	371	74	38	19
10	33	17	22	22	17	20	54	790	336	72	32	18
11	30	24	22	22	17	21	59	966	336	84	28	18
12	28	24	23	21	16	20	56	1130	336	87	27	22
13	26	24	22	21	16	21	65	1240	332	71	31	19
14	27	22	20	22	17	23	80	1280	336	68	27	18
15	30	21	19	20	18	24	98	1390	326	68	30	18
16	28	19	18	18	17	24	122	1330	318	80	27	22
17	27	22	17	18	18	23	160	1270	300	108	24	27
18	27	24	19	17	17	23	218	1210	267	74	28	24
19	26	20	22	15	16	23	231	1150	249	62	74	21
20	25	20	22	15	16	26	182	1180	234	52	59	19
21	24	19	21	15	16	31	157	1320	218	47	59	18
22	24	19	19	16	16	30	145	1430	200	43	63	20
23	24	19	20	16	17	28	160	1410	182	42	86	18
24	23	20	21	16	16	31	237	1460	171	41	57	18
25	23	22	22	17	16	34	300	1350	166	38	52	17
26	22	21	23	18	17	33	231	1190	192	36	56	17
27	22	20	23	18	16	33	180	1090	182	38	49	22
28	23	18	21	18	16	30	157	984	166	44	47	22
29	22	18	20	18	16	33	142	900	142	45	41	20
30	22	22	19	17	---	35	128	855	149	44	35	18
31	22	---	21	17	---	34	---	780	---	60	33	---
TOTAL	986	627	657	590	486	762	3517	28953	10466	2192	1386	649
MEAN	31.8	20.9	21.2	19.0	16.8	24.6	117	934	349	70.7	44.7	21.6
MAX	77	24	26	23	18	35	300	1460	840	140	86	35
MIN	22	17	17	15	16	16	30	142	142	36	24	17
AC-FT	1960	1240	1300	1170	964	1510	6980	57430	20760	4350	2750	1290

CAL YR 1983 TOTAL 52720 MEAN 144 MAX 1410 MIN 15 AC-FT 104600
WTR YR 1984 TOTAL 51271 MEAN 140 MAX 1460 MIN 15 AC-FT 101700

NOTE.--NO GAGE-HEIGHT RECORD JAN. 12 TO MAR. 26.

08249000 CONEJOS RIVER NEAR LASAUSES, CO

LOCATION.--Lat 37°18'01", long 105°44'47" in SW¼SW¼ sec.2, and SE¼NE¼ sec.10 (two channels), T.35 N., R.11 E., Conejos County, Hydrologic Unit 13010005, on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Highway 158, 1.0 mi upstream from mouth, 2.1 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--887 mi^2.

PERIOD OF RECORD.--March 1921 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to Oct. 1, 1966, published as "near La Sauses."

REVISED RECORDS.--WSP 1312: 1934(M).

GAGE.--Two water-stage recorders. Datum of gage on main (north) channel is 7,495.02 ft, and on secondary (south) channel is 7,496.89 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Main channel: See WSP 1732 for history of changes prior to Oct. 1, 1937. South channel: Prior to Oct. 23, 1934, at bridge 230 ft downstream at datum 0.56 ft, lower; Oct. 23, 1934, to May 3, 1936, at site 250 ft downstream, and May 4, 1936, to Oct. 13, 1965, at site 280 ft downstream, at datum 1.00 ft, lower.

REMARKS.--Records good. Diversions for irrigation of about 75,000 acres above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--63 years, 184 ft^3/s; 133,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft^3/s, May 15, 1941; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft^3/s May 16; minimum daily, 1.2 ft^3/s, Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	18	30	88	88	91	204	284	1180	290	46	23
2	14	17	33	86	92	86	209	275	1370	226	37	20
3	54	18	50	84	92	90	186	293	1170	212	34	21
4	40	17	76	88	92	92	191	339	1080	176	34	21
5	22	17	69	88	90	102	176	473	951	145	29	19
6	11	19	72	88	86	95	173	663	852	126	27	18
7	8.9	19	75	88	84	96	186	718	686	91	72	16
8	8.0	19	77	88	82	96	198	722	567	100	142	14
9	6.8	18	80	88	80	100	205	761	467	116	88	14
10	5.9	18	79	88	85	105	238	930	403	166	56	14
11	5.6	19	79	88	78	117	225	1170	407	196	35	14
12	5.6	19	84	86	82	118	243	1300	396	196	26	14
13	5.9	19	80	84	85	131	227	1450	452	138	24	14
14	5.3	20	72	90	82	150	260	1620	490	96	25	14
15	5.3	21	73	86	85	182	307	1660	661	80	30	16
16	5.3	22	69	81	82	195	373	1700	789	72	29	16
17	5.3	24	69	79	88	191	454	1550	840	82	29	16
18	5.3	29	71	75	86	188	600	1380	717	89	37	16
19	5.6	32	74	71	84	163	727	1290	603	64	35	15
20	5.6	30	84	67	83	165	716	1200	509	50	72	15
21	5.9	30	79	69	82	186	568	1220	488	41	51	15
22	5.9	28	82	69	82	217	506	1330	573	36	47	15
23	5.9	26	73	71	84	216	470	1500	620	40	58	15
24	5.9	25	69	71	82	203	527	1540	549	34	60	15
25	6.8	25	73	73	85	210	666	1540	490	35	64	15
26	11	25	80	74	86	206	651	1610	544	43	53	16
27	17	26	90	76	86	199	474	1490	568	49	41	16
28	17	28	71	78	82	191	389	1440	582	45	32	16
29	19	32	67	80	85	191	357	1310	463	43	26	16
30	20	32	73	82	---	196	324	1180	350	43	24	16
31	20	---	79	84	---	186	---	1220	---	43	23	---
TOTAL	361.0	692	2234	2508	2460	4754	11030	35158	19817	3163	1386	485
MEAN	11.6	23.1	72.1	80.9	84.8	153	368	1134	661	102	44.7	16.2
MAX	54	32	90	90	92	217	727	1700	1370	290	142	23
MIN	1.2	17	30	67	78	86	173	275	350	34	23	14
AC-FT	716	1370	4430	4970	4880	9430	21880	69740	39310	6270	2750	962

CAL YR 1983 TOTAL 90643.45 MEAN 248 MAX 1540 MIN .51 AC-FT 179800
WTR YR 1984 TOTAL 84048.00 MEAN 230 MAX 1700 MIN 1.2 AC-FT 166700

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi north of Colorado-New Mexico State line, 7 mi downstream from Culebra Creek, 10 mi east of Lobatos, and 14 mi east of Antonito.

DRAINAGE AREA.--7,700 mi^2, approximately, includes 2,940 mi^2 in closed basin in northern part of San Luis Valley, Colo.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

REVISED RECORDS.--WSP 1312: 1919 (monthly runoff). WSP .10: Drainage area. WDR CO-78-1: 1976.

GAGE.--Water Stage recorder. Datum of gage is 7,427.63 ft, National Geodetic Vertical Datum of 1929. Prior to 1910, nonrecording gages at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversion for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft^3/s; 612,900 acre-ft/yr, includes period of extensive development for irrigation: 54 years (water years 1931-84), 420 ft^3/s; 304,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft^3/s, June 8, 1905, gage height, 9.1 ft, from rating curve extended above 8,000 ft^3/s; no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,390 ft^3/s at 1500 May 31, gage height, 4.53 ft; minimum daily, 34 ft^3/s, Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	92	185	270	265	305	744	816	3100	636	157	154
2	38	105	200	275	270	300	752	760	2870	601	170	125
3	56	108	215	280	270	305	713	650	2640	587	139	110
4	125	105	245	275	270	330	678	594	2320	544	133	136
5	90	105	275	270	275	290	678	692	1930	490	145	142
6	73	102	280	275	270	335	657	848	1570	425	142	157
7	76	102	275	290	270	350	678	979	1400	385	142	157
8	78	100	255	300	275	340	713	1010	1140	405	216	157
9	73	98	260	295	280	350	728	1020	979	380	250	154
10	58	98	270	295	285	355	744	1110	864	395	178	142
11	55	102	295	295	290	370	792	1340	784	440	164	142
12	58	110	305	290	290	385	776	1540	706	455	151	128
13	60	110	305	290	295	420	768	1730	752	405	112	112
14	56	110	295	295	300	450	776	2000	800	365	98	102
15	69	110	280	280	290	520	816	2280	907	350	92	105
16	69	110	255	290	305	580	880	2520	1040	350	88	112
17	67	110	265	285	305	620	997	2640	1130	350	82	108
18	62	112	260	280	325	680	1070	2560	1150	380	85	110
19	60	85	270	280	315	680	1090	2140	1090	365	105	130
20	62	135	290	270	320	720	1330	1920	889	335	115	133
21	62	140	300	265	315	750	1450	1760	832	306	174	133
22	55	95	300	250	310	880	1400	1840	925	270	212	128
23	51	110	300	245	310	810	1270	2310	1040	242	258	122
24	55	95	290	250	305	910	1200	2750	1050	220	250	120
25	50	100	310	245	310	1020	1230	2840	898	181	262	110
26	56	95	330	250	315	898	1190	3030	898	154	278	102
27	51	85	345	255	300	856	988	3120	997	148	325	95
28	55	85	280	260	305	808	848	3040	1020	139	290	92
29	60	130	315	260	310	776	784	3140	925	130	254	88
30	71	160	290	270	---	752	816	3200	744	125	220	85
31	88	---	290	270	---	744	---	3310	---	130	184	---
TOTAL	1973	3204	8630	8500	8545	17889	27556	59489	37390	10688	5471	3691
MEAN	63.6	107	278	274	295	577	919	1919	1246	345	176	123
MAX	125	160	345	300	325	1020	1450	3310	3100	636	325	157
MIN	34	85	185	245	265	290	657	594	706	125	82	85
AC-FT	3910	6360	17120	16860	16950	35480	54660	118000	74160	21200	10850	7320

CAL YR 1983 TOTAL 195460 MEAN 536 MAX 3150 MIN 23 AC-FT 387700
WTR YR 1984 TOTAL 193026 MEAN 527 MAX 3310 MIN 34 AC-FT 382900

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1981.
WATER TEMPERATURES: October 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,040 micromhos Sept. 17, 18, 1977; minimum, 89 micromhos May 9, 1979.
WATER TEMPERATURE. Maximum, 30.0°C July 17, 1977; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 18...	1245	65	393	8.4	11.0	2.0	11.8	<4	K12
DEC 30...	1215	275	176	8.0	.5	6.1	10.6	K20	300
FEB 14...	1445	E289	194	7.4	.0	3.5	10.4	K60	270
APR 24...	1345	1120	166	8.0	12.0	26	7.8	--	--
JUN 25...	1600	1010	286	8.4	20.0	7.6	9.3	K32	120
AUG 21...	1030	170	365	8.5	18.0	7.0	--	<3	K7

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 18...	130	40	8.3	34	1	4.6	126	69	9.3	.60
DEC 30...	75	23	4.2	11	.6	2.5	75	20	3.0	.30
FEB 14...	69	21	3.9	11	.6	2.6	76	22	2.8	.20
APR 24...	63	19	3.8	11	.6	2.7	61	22	3.7	.20
JUN 25...	82	24	5.2	22	1	4.1	68	63	5.8	.30
AUG 21...	120	36	7.6	33	1	5.6	111	61	8.5	.50

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT 18...	22	270	260	.37	47	<.10	.060	1.1	.170	.140
DEC 30...	29	--	140	.19	103	.27	.080	.40	.100	.090
FEB 14...	29	132	140	.18	--	.27	.300	.30	.110	.070
APR 24...	22	121	120	.16	366	.15	.220	1.3	.170	.090
JUN 25...	19	195	190	.27	532	<.10	.020	.50	.120	.080
AUG 21...	23	232	240	.32	106	.21	<.010	.70	.190	.160

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT 18...	3	46	<1	<1	<3	8	29	<1
FEB 14...	<1	32	1	<1	<3	3	31	3
JUN 25...	<1	35	<1	1	<3	3	230	<1
AUG 21...	2	35	<1	<1	<3	5	36	<1

K BASED ON NON-IDEAL COLONY COUNT.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT							
18...	15	.1	<10	2	<1	1	5
FEB							
14...	19	<.1	<10	<1	<1	<1	<3
JUN							
25...	21	<.1	<10	4	<1	<1	11
AUG							
21...	8	<.1	<10	1	<1	<1	5

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
OCT								
18...	<6.6	<.5	<3.5	.5	<3.0	.5	.07	2.1
JUN								
25...	<3.7	1.7	3.9	1.3	3.3	1.1	.07	.8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						APR					
18...	1245	65	17	3.0	78	24...	1345	1120	308	931	22
DEC						JUN					
30...	1215	275	19	14	92	25...	1600	1010	128	349	96
FEB						AUG					
14...	1445	E289	17	--	--	21...	1030	170	32	15	82

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations and diversions of 6 selected diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W. in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport
diversions to north portal of the tunnel.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte, River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
TO PLATTE RIVER BASIN												
09010000	0	0	0	0	0	0	0	0	3,530	9,130	3,960	1,000
Water year 17,620												
09013000	9,760	15,110	26,930	11,930	18,490	21,130	5,550	2,470	12,580	31,190	24,860	15,510
Water year 195,510												
09021500	5.5	0	0	0	0	0	0	0	274	647	159	37
Water year 1,120												
09050590	0	0	0	0	0	0	0	0	0	0	0	0
Water year 0												
TO ARKANSAS RIVER BASIN												
09042000	1,870	0	0	0	0	0	0	960	1,680	721	742	1,310
Water year 7,280												
09063700	0	738	0	0	0	2,740	0	1,690	3,130	4,230	12,680	2,710
Water year 27,920												

TRANSMOUNTAIN DIVERSIONS NO LONGER PUBLISHED

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN

09012000	Eureka ditch
09022500	Moffat Water tunnel
09046000	Boreas Pass ditch
09047300	Vidler tunnel

TO ARKANSAS RIVER BASIN

09061500	Columbine ditch
09062000	Ewing ditch
09062500	Wurtz ditch
09073000	Twin Lakes tunnel
09077160	Chas. H. Boustead tunnel
09077500	Busk-Ivanhoe tunnel
09115000	Larkspur ditch

TO RIO GRANDE BASIN

09118200	Tarbell ditch
09121000	Tabor ditch
09341000	Treasure Pass ditch
09347000	Don LaFont ditches 1&2
09348000	Williams Cr-Squaw Pass ditch
09351000	Pine River-Weminuche Pass ditch
09351500	Weminuche Pass ditch

BEST C AVAILABLE

As the number of streams on which streamflow information is likely to be desired far exceeds the number of streamflow-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than streamflow-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1984

Station number	Station name	Location	Total drainage area (mi^2)	Non contributing	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		PLATTE RIVER BASIN						
--------	Lee Gulch at Lakewood, CO	Lat 39°35'47", long 105°00'56", in SW¼SW¼ sec.21, T.5 S., R.68W., Arapahoe County, on right bank 30 ft above Prince St. culvert, 0.6 mi upstream from mouth in Littleton.	a		1980-84	1981 1982 1983 1984	12.41 12.25 16.00 14.88	118 107 444 245
06708500	Deer Creek near Littleton, CO	Lat 39°32'56", long 105°07'59", in NE¼NE¼ sec.8, T.6 S., R.69 W., Jefferson County, 70 ft upstream from county bridge over Deer Creek, 7.5 mi southwest of Littleton.	26.2	-	1942-46, 1978-84	1984	5.24	59
06710350	Bear Creek near Evergreen, CO	Lat 39°38'11", long 105°20'51", in NW¼NW¼ sec.9, T.5 S., R.71 W., Jefferson County, 1.4 mi upstream from confluence with Evergreen Lake, 1.6 mi northwest of Evergreen.	96.5	-	1978-84	1984	6.81	253
06710400	Cub Creek at Evergreen, CO	Lat 39°37'50", long 105°19'16", in NW¼SE¼ sec.10, T.5 S., R.71 W., Jefferson County, 0.1 mi upstream from confluence with Bear Creek.	22.2	-	1978-84	1984	7.05	137
06710500	Mt. Vernon Creek near Morrison, CO	Lat 39°40'49", long 105°11'50", in NW¼NW¼ sec.26, T.4 S., R.70 W., Jefferson County, 1.9 mi north of Morrison.	7.58	-	1978-84	1984	9.60	Not determined
06710990	Parmalee Gulch at mouth at Indian Hills, CO	Lat 39°36'57", long 105°13'54", in NW¼SE¼ sec.16, T.5 S., R.70 W., Jefferson County, 20 ft upstream from box type culvert beneath U.S. Highway 285.	5.80	-	1978-84	1984	9.62	100
06711000	Turkey Creek near Morrison, CO	Lat 39°37'22", long 105°11'13", in NE¼NE¼ sec.14, T.5 S., R.70 W., Jefferson County, 2.2 mi southwest of Morrison.	48.0	-	1942-53 1969 1978-84	1984	11.35	450
--------	Weaver Creek near Lakewood, CO	Lat39°38'13", long 105°07'47", in NE¼NE¼ sec.8, T.5 S., R.69 W., Jefferson County, 500 ft upstream from Simms St., and 700 ft south of West Quincy Ave.	a		1982-84	1982 1983 1984	12.25 11.01 11.15	235 57 69
--------	Little Dry Creek above Englewood, CO	Lat39°38'56", long 104°58'40", in SW¼NW¼ sec.2, T.5 S., R.68 W., Arapahoe County, 40 ft above Clarkson St. bridge, and 800 ft south of Hampton Ave., in Cherry Hills Village.	a		1982-84	1982 1983 1984	11.68 15.64 13.87	315 1,060 814
06711570	Harvard Gulch at Colorado Blvd. at Denver, CO	Lat 39°40'08", long 104°56'32", in SE¼SE¼ sec.30, T.4 S., R67 W., Denver County, on left bank, 100 ft upstream from S. Jackson St., and 400 ft north of E. Yale Ave.	a		1979-84	1981 1982 1983 1984	12.55 11.86 12.40 11.62	395 210 410 200

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1984--Continued

Station number	Station name	Location	Total drainage area (mi^2)	Non con-trib-uting	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Dis charge (ft^3/s)
		PLATTE RIVER BASIN--Continued						
--------	Harvard Gulch below University Blvd. at Denver, CO	Lat 39°40'10", long 104°57'33", in SE¼SE¼ sec.26, T.4.S., R.68 W., Denver County, 200 ft downstream from University Blvd., and 600 ft north of East Yale Ave., in Denver.	a		1979-84	1981 1982 1983 1984	11.52 12.04 13.75 10.77	297 286 780 230
06711575	Harvard Gulch at Harvard Park at Denver, CO	Lat 39°40'21", long 104°58'35", in NW¼SW¼ sec.26, T.4 S., R.68 W., Denver County, on left bank, 200 ft north of E. Harvard Ave. and 300 ft west of S. Ogden St., directly north of Porter Hospital.	a		1979-84	1981 1982 1983 1984	15.61 13.59 14.81 13.44	785 214 488 191
06711600	Sanderson Gulch tributary at Lakewood, CO	Lat 39°41'19", long 105°04'54", in NE¼NW¼ sec.23, T.4 S., R.68 W., Jefferson County, 300 ft upstream from S. Wadsworth Blvd., 300 ft south of W. Florida Ave. in Lakewood.	.38	-	1969-84	6-12-84	11.96	61
--------	Dry Gulch at Denver, CO	Lat 39°44'03", long 105°02'20", in SW¼NE¼ sec.6, T.4 S., R.68 W., Denver County, 800 ft upstream from confluence with Lakewood Gulch, north of West 10th Ave., at Perry St., in Denver.	a		1980-84	1981 1982 1983 1984	16.00 14.00 12.38 15.09	445 300 187 376
--------	Lakewood Gulch at Denver, CO	Lat39°44'06", long 105°01'54", in SW¼NW¼ sec.5, T.4 S., R.68 W., Denver County, 2,000 ft downstream from confluence with Dry Gulch, near intersection of Knox Ct., and West 12th Ave., in Denver.	a		1980-84	1981 1982 1983 1984	14.49 14.78 15.03 17.24	728 786 836 930
06713500	Cherry Creek at Denver, CO	Lat 39°44'58", long 105°00'08", in NE¼ sec.33, T.3S., R.68 W., Denver County, on right bank, on downstream side of Wazee St. bridge in Denver, 0.5 mi upstream from mouth.	409		b1942-69, b1980-83 1984	8-20-84	5.37	1,020
06714310	Sand Creek tributary at Denver, CO	Lat 39°47'07", long 104°50'31", in SW¼SW¼ sec.13, T.3 S., R.67 W., Denver County, in median of Andrews Drive Parkway, 50 ft downstream from Troy St. in Denver.	.29	-	1971-84	6-29-84	12.42	213
--------	Westerly Creek at Aurora, CO	Lat 39°44'43", long 104°52'48", in NW¼SW¼ sec.34, T.3 S., R.67 W., Adams County, 50 ft upstream from footbridge, 800 ft upstream from Montview Blvd., and 100 ft east of Boston St., in Aurora.	a		1982-84	1982 1983 1984	11.30 14.45 13.55	205 690 510
--------	Little Dry Creek at Westminster, CO	Lat 39°49'39", long 105°02'28", in SE¼NW¼ sec.5, T.3 S., R.68 W., Adams County, 30 ft upstream from culvert under 72nd Ave., and 1300 ft west of Lowell Blvd. in Westminster. (Discontinued Aug. 7, 1984).	a		1982-84	1982 1983 1984	15.52 13.01 15.52	954 420 954
06723000	Middle Fork St. Vrain Creek near Allens Park, CO	Lat 40°10'07", long 105°26'27", in SW¼NW¼ sec.3, T.2 N., R.72 W., Boulder County, 1.4 mi northeast from Raymond.	28.0	-	1925-30 1978-84	1984	7.37	690
06732500	Fall River at Estes Park, CO	Lat 40°22'40", long 105°31'56", in NW¼NW¼ sec.25, T.5 N., R.73 W., Larimer County, [illegible]0 ft upstream from State bridge 34 and 0.7 mi upstream from mouth. Destroyed by flood, 7-82.	39.5	-	1947-53 1978-84	1984	7.79	225
06736650	Cedar Creek at Cedar Cove, CO	Lat 40°25'08", long 105°15'53", NW¼NW¼ sec.8, T.5 N., R.70 W., Larimer County, 0.2 mi north of Cedar Cove and 4.1 mi southeast of Drake.	18.9	-	1978-84	1984	5.56	55

BEST Y AVAILABLE

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1984--Continued

Station number	Station name	Location	Total drainage area (mi²)	Non contributing	Period of record	Date	Annual maximum	
							Gage height (feet)	Discharge (ft³/s)
		ARKANSAS RIVER BASIN						
07091000	Chalk Creek near Nathrop, CO	Lat 38°44'01", long 106°09'34", in SE¼NW¼ sec.19, T.15 S., R.78 W., Chaffee County, 4 mi west of Nathrop.	97.0	-	1910, 1949-56, 1978-84	1984	3.04	880
07107500	St. Charles River Burnt Mill, CO	Lat 38°03'06", long 104°47'35", in NE¼NE¼ sec.17, T.23 S., R.66 W., Pueblo County, 5.9 mi downstream from North St. Charles River.	166	-	1923-33, 1978-84	1984	2.66	370

a Not determined.
b Operated as a continuous-record station these years.

BEST CO AVAILABLE

Listed below are partial-record sites established to monitor seepage from Teller Reservoir on Fort Carson Military Reservation.

DISCHARGE MEASUREMENTS MADE AT PARTIAL-RECORD SITES MADE FOR WATER YEARS 1982 TO 1984

Station no.	Stream	Tributary to	Location	Date	Discharge (ft³/s)
			ARKANSAS RIVER BASIN		
3826261044943	Teller Reservoir Seepage No. 1 Near Stone City, Co.	Turkey Creek	Lat 38°26'26", long 104°49'43" in NW¼SW¼ sec.31, T.18 S., Pueblo County, at right downstream toe of Teller Dam	5-11-82	0.01
				6-23-82	0.04
				8-06-82	0.08
				8-30-82	0.09
				10-21-82	0.07
				7-18-83	0.08
				9-06-83	0.08
				4-05-84	0.06
				6-25-84	0.01
				8-29-84	0.08
07099235	Turkey Creek Near Stone City, Co.	Turkey Creek	Lat 38°26'27", long 104°49'31' in SE¼NW¼ sec.31, T.18 S., Pueblo County, 0.1 mi downstream from Teller Dam (formerly recording station)	10-13-83	0.76
				11-17-83	0.78
				4-15-84	0.47
3826281044940	Teller Reservoir Seepage No. 2 Near Stone City, Co.	Turkey Creek	Lat 38426'28", long 104°49'40", in NW¼SE¼ sec.36, T.18 S., Pueblo County, 500 ft downstream of right toe of Teller Dam.	5-11-82	0.10
				6-23-82	0.95
				8-06-82	1.4
				8-30-82	1.1
				10-21-82	0.81
				10-27-82	0.66
				9-06-83	0.41
				4-05-84	0.16
				6-25-84	0.05
				8-29-84	0.25

Listed below is a slope area measurement requested by the U.S. Army Corp of Engineers at a miscellaneous site.

Station no.	Stream	Tributary to	Location	Date	Discharge (ft³/s)
-------------	Wolf Creek at Granada, Co.	Arkansas River	Lat 38°04'20", long 102°18'25", in SW¼SE¼ sec.1, T. 23 S., R. 43 W., Prowers County, 0.25 mi downstream U.S. Hwy 385, at north edge of Granada, Co.	7-15-84	12,100

STREAMFLOW GAIN-AND-LOSS INVESTIGATION OF COLORADO CANAL NEAR BOONE, CO

A series of gain-and-loss measurements were made in March 1984 along the Colorado Canal. These measurements were made during a fairly stable period of release. The specific locations of the measurements can be obtained by contacting the Pueblo, Colorado subdistrict.

ARKANSAS RIVER BASIN

Coloraro Canal Site No.	Date	Discharge (ft³/s)
1	Mar. 6, 1984	229
2	do	227
3	do	221
4	do	226
5	do	230
6	do	234
7	do	225
8	do	234
9	do	231
10	do	217
11	do	220
12	do	220
13	do	221
14	do	218
18	do	208
19	do	209
20	do	212

06614800 - MICHIGAN RIVER NEAR CAMERON PASS, CO. (LAT 40 29 46 LONG 105 51 52)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
04...	1440	8.0	1.2	35	09...	1030	.5	.34	--
NOV					30...	1110	1.5	18	45
17...	1630	1.0	.51	<50	JUN				
DEC					29...	1010	3.5	23	30
15...	1630	.0	.56	40	JUL				
JAN , 1984					25...	0945	7.0	11	30
11...	1620	.5	.39	52	AUG				
FEB					27...	1645	10.0	5.6	60
28...	1550	1.0	.20	50					
APR									
15...	1340	1.5	.28	50					

06696980 - TARRYALL CREEK AT UPPER STATION, NEAR COMO, CO. (LAT 39 20 22 LONG 105 54 37)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
03...	1500	8.0	22	60	16...	1255	7.0	51	160
NOV					JUN				
08...	1445	2.0	10	200	12...	1420	7.0	72	80
DEC					JUL				
12...	1725	1.0	15	170	10...	1615	8.0	81	140
FEB , 1984					AUG				
07...	1600	1.0	6.3	90	06...	1640	7.0	79	120
MAR					SEP				
20...	1610	1.0	4.3	110	12...	1630	7.0	29	60
APR									
24...	1645	1.0	5.4	120					

06697450 - MICHIGAN CREEK ABOVE JEFFERSON, CO. (LAT 39 21 32 LONG 105 50 27)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
03...	1130	6.0	10	60	09...	1420	5.0	9.8	80
NOV					JUN				
08...	1130	1.0	9.1	80	12...	1115	8.0	40	90
DEC					JUL				
12...	1345	.5	8.8	85	10...	1125	8.0	122	120
FEB , 1984					AUG				
08...	1050	.0	3.7	60	06...	1130	7.0	71	85
MAR					SEP				
20...	1250	.0	11	<50	11...	1240	7.0	19	65
APR									
24...	1325	1.0	11	80					

06698000 - JEFFERSON CREEK NEAR JEFFERSON, CO. (LAT 39 23 24 LONG 105 48 38)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
03...	0955	6.0	31	<50	24...	1110	.0	4.6	80
NOV					MAY				
08...	0950	1.0	5.4	100	09...	1325	6.0	4.0	<50
DEC					JUL				
12...	1130	.5	5.3	<50	03...	1740	6.0	42	120
FEB , 1984					AUG				
08...	1440	.0	.22	<50	06...	1025	6.0	36	60
MAR					SEP				
20...	1100	.0	.39	60	11...	1110	6.0	20	60

06699005 - TARRYALL CREEK BELOW ROCK C NEAR JEFFERSON, CO. (LAT 39 17 13 LONG 105 41 43)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
03...	1400	8.0	77	120	09...	1135	2.0	60	140
NOV					JUN				
08...	1250	2.0	27	200	12...	1315	8.0	132	120
DEC					JUL				
12...	1530	1.0	22	200	10...	1415	8.0	335	150
FEB , 1984					AUG				
08...	1325	.0	12	130	06...	1315	8.0	180	120
MAR					SEP				
20...	1225	.0	11	150	11...	1550	8.0	75	70

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06709500 - PLUM CREEK NEAR LOUVIERS, CO. (LAT 39 29 04 LONG 105 00 07)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
12...	1155	11.0	19	140
27...	1245	10.0	17	200
NOV				
15...	1130	4.0	29	300
DEC				
06...	1210	1.0	21	360
JAN , 1984				
10...	1605	.5	27	300
23...	1515	.5	19	340
FEB				
08...	1440	2.0	49	290
22...	1030	1.0	49	410
28...	1515	.5	33	330
MAR				
19...	1315	12.0	84	275
APR				
04...	1210	11.0	72	--
APR , 1984				
09...	1430	10.0	238	165
MAY				
01...	1205	14.0	336	190
09...	1100	10.0	432	160
24...	1320	18.0	517	160
JUN				
13...	1240	25.0	103	250
27...	1605	27.0	68	270
JUL				
10...	1225	27.0	53	300
27...	1230	26.5	52	300
AUG				
09...	1125	24.0	37	300
28...	1030	21.0	67	320
SEP				
19...	1100	19.0	30	325

06711500 - BEAR CREEK AT MOUTH, AT SHERIDAN, CO. (LAT 39 39 08 LONG 105 01 57)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
13...	0945	8.5	29	--
25...	0945	6.0	24	--
NOV				
08...	1650	2.5	57	--
21...	1405	4.0	51	--
DEC				
07...	1620	4.0	47	--
22...	1530	.0	38	--
JAN , 1984				
05...	0930	1.0	38	--
17...	1500	.5	37	--
26...	0605	1.5	--	450
26...	0900	1.5	--	450
26...	1200	3.0	--	450
25...	1500	4.0	--	460
26...	1845	5.0	--	400
26...	2120	3.0	--	500
26...	2340	3.0	--	550
27...	0140	3.0	--	650
27...	0410	3.0	--	500
FEB				
01...	1410	6.0	35	--
14...	1450	5.0	36	--
FEB , 1984				
27...	1130	.5	35	--
MAR				
29...	1205	9.0	68	--
APR				
11...	0915	7.5	158	--
26...	1335	7.0	542	--
MAY				
08...	1525	11.5	307	--
22...	1510	14.5	357	--
JUN				
06...	1040	14.0	156	--
19...	1745	19.0	101	--
JUL				
03...	0915	19.0	63	--
19...	1305	24.0	36	--
30...	0910	19.0	151	--
AUG				
16...	1330	22.0	117	--
29...	1400	17.0	390	--
SEP				
11...	0945	15.5	108	--
26...	1425	12.0	73	--

06711565 - SOUTH PLATTE RIVER AT ENGLEWOOD, CO. (LAT 39 39 54 LONG 105 00 13)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
05...	0950	8.0	103	650
NOV				
04...	0950	8.0	82	650
JAN , 1984				
26...	0840	2.0	--	790
26...	1100	--	64	--
26...	1235	3.0	--	780
26...	1615	4.0	--	790
26...	2115	2.0	--	800
27...	0105	2.0	--	750
27...	0400	1.5	--	750
27...	0720	1.0	--	750
MAR , 1984				
07...	1020	2.0	238	510
JUN				
26...	1045	18.0	987	270
JUL				
23...	1125	22.0	557	380
AUG				
20...	1235	22.5	1960	370
29...	1000	20.0	3060	220
SEP				
24...	1140	12.5	189	560

06712000 - CHERRY CREEK NEAR FRANKTOWN, CO. (LAT 39 21 21 LONG 104 45 46)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
12...	1440	10.0	9.2	120
27...	1505	12.0	15	197
NOV				
15...	1315	4.0	10	250
DEC				
06...	1545	.5	14	280
JAN , 1984				
10...	1210	.5	14	250
FEB				
13...	1140	.5	16	310
28...	1100	.5	10	285
MAR				
19...	1050	.5	27	280
APR				
09...	1330	5.5	132	140
MAY , 1984				
10...	1225	14.0	58	240
25...	1255	17.0	32	350
JUN				
13...	1530	22.5	27	250
27...	1335	21.5	25	250
JUL				
06...	1100	19.0	19	240
25...	1300	21.5	9.5	260
AUG				
10...	1330	19.0	24	260
SEP				
17...	1350	12.0	25	235

06713000 - CHERRY CREEK BELOW CHERRY CREEK LAKE, CO. (LAT 39 39 12 LONG 104 51 41)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
FEB , 1984				
02...	1450	3.5	112	650
13...	1400	4.0	143	750
MAR				
28...	1225	5.0	199	280
APR				
17...	1210	8.5	193	530
MAY				
10...	1440	12.0	182	500
15...	1300	16.0	44	410
MAY , 1984				
29...	1400	18.0	43	--
JUL				
10...	0940	21.0	71	460
25...	0935	21.0	1.8	490
AUG				
16...	1435	28.0	1.0	470
28...	1545	25.5	1.3	460
29...	1445	21.0	192	500

06714000 - SOUTH PLATTE RIVER AT DENVER, CO. (LAT 39 45 35 LONG 105 00 10)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
05...	1030	13.5	153	--
17...	1635	14.0	169	--
NOV				
02...	1145	13.5	114	--
17...	0930	7.5	153	--
DEC				
01...	0925	2.0	148	--
15...	1405	4.0	164	--
27...	1135	2.0	162	--
JAN , 1984				
09...	1520	4.0	224	--
25...	1040	3.5	100	--
26...	0800	5.0	--	1000
26...	1020	--	90	--
26...	1155	5.0	--	1030
26...	1510	6.5	--	910
26...	1600	--	114	--
26...	1915	5.0	--	1020
26...	2210	5.0	--	990
27...	0045	4.0	--	990
27...	0335	4.0	--	1000
FEB				
07...	1235	6.0	299	--
FEB , 1984				
22...	0755	5.0	173	--
MAR				
06...	1235	5.0	267	--
20...	0930	5.0	394	--
APR				
17...	1000	9.0	722	--
MAY				
01...	1610	12.0	1160	--
16...	1620	12.0	3770	--
29...	1700	19.0	1220	--
JUN				
11...	1020	16.0	1360	--
JUL				
13...	1015	20.0	1020	--
24...	1250	24.0	598	--
AUG				
07...	1540	22.0	1160	--
20...	0950	20.0	1620	--
SEP				
05...	1430	19.0	1370	--
20...	1445	12.5	533	--

06714215 - SOUTH PLATTE R AT 64TH ST. AT COMMERCE CITY, CO. (LAT 39 48 44 LONG 104 57 28)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
05...	1225	17.0	16	1550
NOV				
04...	1305	11.0	15	1750
DEC				
08...	1240	9.5	17	1650
15...	1200	7.5	149	900
JAN , 1984				
11...	1350	5.0	230	1150
24...	1500	6.0	123	1210
MAR				
07...	1145	7.5	288	740
MAY , 1984				
14...	1435	14.0	3350	260
31...	1355	18.0	384	400
JUN				
25...	1430	18.0	476	390
JUL				
23...	1415	23.5	362	445
AUG				
20...	1540	22.0	1730	480
29...	1215	20.0	2700	340
SEP				
24...	1405	13.0	204	620

06726900 - BUMMERS GULCH NEAR EL VADO, CO. (LAT 40 00 42 LONG 105 20 53)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
26...	1500	9.0	.40	420
DEC				
07...	1520	1.0	.46	330
28...	1520	.0	.27	320
FEB , 1984				
22...	1510	5.0	.46	380
MAR				
21...	1440	8.0	.67	380
APR				
19...	1500	6.0	2.1	320
MAY , 1984				
23...	1530	16.0	2.0	320
JUN				
26...	0845	11.0	.96	360
JUL				
16...	1550	16.0	.27	400
AUG				
20...	1310	15.5	.25	285

06727500 - FOURMILE CREEK AT ORODELL, CO. (LAT 40 01 06 LONG 105 19 33)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
26...	1440	8.5	1.5	340
DEC				
07...	1410	.0	1.6	240
28...	1430	.0	.99	230
FEB , 1984				
22...	1415	3.0	2.2	310
MAR				
21...	1410	8.0	3.4	270
APR				
19...	1355	6.0	18	215
MAY , 1984				
23...	1440	13.5	44	95
JUN				
26...	0720	10.0	13	80
JUL				
16...	1445	18.0	4.8	120
AUG				
20...	1400	18.0	2.5	180

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06746095 - JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO. (LAT 40 32 24 LONG 105 52 56)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
04...	0945	.5	2.2	65	05...	1500	.0	.46	65
NOV					MAY				
17...	1430	.0	.63	<50	08...	1700	.5	.35	65
DEC					30...	1500	2.5	28	38
15...	1350	.0	.69	40	JUL				
JAN , 1984					25...	1220	10.5	11	38
10...	1440	.5	.48	65	AUG				
FEB					27...	1900	10.0	4.8	50
28...	1400	.0	.53	60					

06746110 - JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO. (LAT 40 33 43 LONG 105 52 09)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
04...	1105	6.5	1.1	45	05...	1545	.0	1.0	75
NOV					MAY				
17...	1145	.0	.62	<50	08...	1330	.5	.28	<50
DEC					30...	1245	4.0	52	36
15...	1225	.0	.42	45	JUL				
JAN , 1984					24...	1510	6.5	57	58
10...	1220	.5	.45	50	26...	1310	6.0	79	--
FEB					AUG				
29...	1500	.0	1.1	55	27...	1430	7.0	14	60

06759100 - BIJOU CREEK NEAR FT. MORGAN, CO. (LAT 40 16 58 LONG 103 52 30)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
NOV , 1983					MAY , 1984				
07...	1510	14.0	8.8	1650	30...	1325	23.0	9.2	1600
DEC					JUN				
14...	0930	7.5	10	1530	19...	1055	22.5	9.1	1720
JAN , 1984					JUL				
23...	1130	9.0	10	1560	24...	1100	19.5	9.1	1680
FEB					AUG				
23...	1010	11.5	10	1560	13...	1140	21.0	9.5	1610
MAR					SEP				
23...	0930	9.5	11	1630	19...	1020	19.0	10	1580
APR									
24...	1520	13.0	11	1650					

06826500 - SOUTH FORK REPUBLICAN RIVER NEAR HALE, CO. (LAT 39 37 26 LONG 102 09 47)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
19...	1040	11.0	5.3	550	15...	1440	19.5	22	380
DEC					JUN				
06...	1000	5.0	5.0	580	18...	1140	19.0	5.6	550
JAN , 1984					JUL				
09...	1150	5.5	5.2	540	24...	1040	19.5	6.1	560
FEB					AUG				
14...	1140	6.0	28	510	21...	1140	20.0	7.9	540
MAR					SEP				
20...	1015	8.0	5.8	540	25...	1010	11.0	5.3	560
APR									
16...	1155	15.0	6.0	550					

07089000 - COTTONWOOD C BL HOT SPRINGS, NR BUENA VISTA, CO. (LAT 38 48 46 LONG 106 13 18)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
NOV , 1983					MAY , 1984				
08...	1600	6.0	33	160	29...	--	2.0	242	--
DEC					JUN				
20...	1045	2.0	26	175	29...	1000	8.0	276	120
JAN , 1984					AUG				
11...	1610	2.0	23	134	07...	1440	15.0	98	90
MAR					SEP				
07...	0930	1.5	20	140	06...	2010	7.0	71	120

07094500 - ARKANSAS RIVER AT PARKDALE, CO. (LAT 38 29 14 LONG 105 22 23)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAR , 1984				
13...	1120	11.0	434	340	05...	1355	3.0	306	320
NOV					JUN				
16...	1400	6.0	397	380	06...	1340	12.0	3490	150

07094900 - MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, CO. (LAT 38 06 30 LONG 105 36 03)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
JUN , 1984					SEP , 1984				
12...	1240	11.0	13	125	11...	1500	5.0	2.2	160
AUG									
14...	1105	8.0	3.8	140					

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07096500 - FOURMILE CREEK NEAR CANON CITY, CO. (LAT 38 26 11 LONG 105 11 27)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
13...	1325	15.0	31	950
JAN , 1984				
13...	1140	6.0	11	1600
APR				
17...	1325	14.0	44	625
JUN , 1984				
01...	1115	15.0	49	640
AUG				
29...	1245	16.0	3150	330
SEP				
27...	1445	16.0	62	280

07099215 - TURKEY CREEK NEAR FOUNTAIN COLO (LAT 38 36 42 LONG 104 53 39)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
03...	1500	8.0	.08	520
28...	1310	14.0	.21	280
NOV				
30...	1445	.0	.36	250
JAN , 1984				
05...	1145	2.0	.02	260
FEB , 1984				
06...	1035	1.0	.32	280
MAR				
14...	1400	14.5	.24	210
JUN				
05...	1035	15.0	.45	200

07099220 - LITTLE TURKEY CREEK NEAR FOUNTAIN, CO. (LAT 38 37 38 LONG 104 51 57)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
MAY , 1984				
10...	1200	16.0	1.3	200

07099230 - TURKEY CREEK AB TELLER RES NEAR STONE CITY, CO. (LAT 38 27 37 LONG 104 49 19)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
12...	1540	16.5	.96	675
NOV				
17...	1420	13.5	1.0	--
DEC , 1983				
22...	1255	4.0	1.0	--

07103747 - MONUMENT CREEK AT PALMER LAKE, CO. (LAT 39 06 07 LONG 104 53 27)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
06...	1010	10.5	5.1	213
31...	1320	10.5	3.9	160
DEC				
01...	1400	3.0	4.6	160
JAN , 1984				
04...	1115	2.5	3.1	160
16...	0910	.0	2.8	173
FEB				
10...	1250	4.5	2.9	170
15...	1015	.0	8.1	165
MAR				
15...	0730	2.0	6.5	155
15...	1235	6.5	6.5	150
APR				
12...	1210	6.5	31	105
19...	0800	3.0	45	94
MAY , 1984				
08...	1120	6.5	63	85
10...	1020	6.5	68	86
JUN				
05...	1155	13.5	21	115
07...	0945	10.0	12	120
25...	1130	16.0	9.5	160
JUL				
02...	1510	21.5	8.7	115
11...	0820	13.5	7.8	185
31...	0940	15.0	8.9	160
AUG				
02...	1100	17.5	8.5	152
16...	1625	24.0	4.5	140
27...	1215	19.5	9.8	190
SEP				
27...	1145	14.0	3.7	190

07103800 - WEST MONUMENT CREEK AT AIR FORCE ACADEMY, CO. (LAT 38 58 14 LONG 104 54 08)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
06...	0815	7.0	.36	120
31...	1435	7.0	.45	108
DEC				
01...	1615	1.0	.35	75
JAN , 1984				
04...	1505	2.5	3.7	110
FEB				
10...	1055	1.0	.27	60
MAR				
15...	1415	2.5	.45	75
APR				
11...	0940	1.5	1.5	75
MAY , 1984				
08...	1305	6.5	5.0	70
JUN				
05...	1330	9.5	1.9	80
JUL				
02...	1130	14.0	.81	80
31...	1255	14.5	.62	95
AUG				
27...	1630	14.5	1.8	--
SEP				
24...	1250	12.0	.72	--

07103950 - KETTLE CREEK NEAR BLACK FOREST, CO. (LAT 39 00 14 LONG 104 44 21)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
28...	1500	8.5	.42	218
DEC				
01...	1210	3.5	.34	220
JAN , 1984				
04...	1215	1.5	.36	220
FEB				
10...	1425	1.5	.34	110
MAR				
15...	1035	5.5	.77	190
APR				
12...	--	8.5	12	160
26...	1405	8.5	12	160
MAY				
06...	0940	11.5	3.2	205
MAY , 1984				
08...	1325	14.5	8.3	180
JUN				
05...	0940	11.5	3.2	205
25...	1315	17.5	2.0	--
JUL				
02...	1335	23.5	1.6	195
31...	1135	15.5	1.4	210
AUG				
27...	1505	23.5	2.3	225
31...	1345	20.0	1.5	180
SEP				
24...	1410	20.5	.89	--

07105800 - FOUNTAIN CREEK AT SECURITY, CO. (LAT 38 43 46 LONG 104 44 00)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
06...	1430	19.0	88	680
NOV				
01...	1420	15.0	69	710
28...	1320	1.0	95	660
JAN , 1984				
10...	1030	4.0	67	700
FEB				
09...	1235	8.5	76	750
MAR				
13...	1545	13.0	97	750
APR				
13...	1115	10.5	154	460
MAY , 1984				
07...	1500	12.0	292	380
JUN				
06...	1105	14.0	129	465
JUL				
03...	1450	27.5	85	660
AUG				
01...	1035	21.0	69	570
07...	1045	20.0	130	425
29...	1410	24.0	201	475
SEP				
25...	1525	--	89	715

07105900 - JIMMY CAMP CREEK AT FOUNTAIN, CO. (LAT 38 41 04 LONG 104 41 17)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
05...	1005	10.5	1.3	3600
31...	1615	14.0	1.6	4100
NOV				
28...	1040	2.5	1.5	3000
JAN , 1984				
10...	1545	6.5	1.4	3250
FEB				
16...	1345	11.5	1.5	2800
MAR				
13...	1015	9.5	1.6	2800
APR				
11...	1225	21.0	1.5	2800
MAY , 1984				
09...	1345	25.5	1.4	2200
JUN				
06...	1235	22.0	1.4	2800
JUL				
31...	1605	22.5	1.9	2700
AUG				
05...	1015	22.5	1.1	2900
29...	1605	29.0	3.2	2000
SEP				
26...	1105	14.0	1.9	2180

07105924 - WOMACK DITCH NEAR FORT CARSON, CO. (LAT 38 40 52 LONG 104 51 20)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
04...	1250	12.0	.30	140
28...	1045	7.5	1.2	125
NOV				
29...	1610	4.0	1.2	120
JAN , 1984				
05...	1515	2.0	.10	120
FEB				
07...	1030	2.5	.67	130
08...	1010	2.5	.82	125
MAR , 1984				
16...	1405	4.0	.78	120
APR				
10...	1320	4.5	1.7	90
MAY				
10...	1015	5.0	2.2	110
JUN				
05...	0910	5.0	2.3	150

07105928 - LITTLE FOUNTAIN CREEK NE FORT CARSON, CO. (LAT 38 40 49 LONG 104 51 06)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
04...	1410	14.0	.95	160
27...	1630	10.0	.01	220
FEB , 1984				
06...	1530	2.5	.13	110
MAR				
16...	1510	6.0	.61	160
APR				
10...	1240	7.0	2.9	115
MAY , 1984				
09...	1400	9.0	9.0	100
JUN				
04...	1540	16.0	2.1	80
AUG				
14...	1145	21.0	.54	160

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07105940 - LITTLE FOUNTAIN CREEK NEAR FOUNTAIN, CO. (LAT 38 38 35 LONG 104 44 48)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAR , 1984				
07...	1050	11.0	.33	2290	12...	1210	9.5	.34	2700
NOV					APR				
02...	1230	12.5	.39	2750	09...	1210	15.5	.35	2600
DEC					MAY				
02...	1430	.5	.34	2200	10...	1530	21.0	9.5	1300
JAN , 1984					JUN				
06...	1500	2.0	.54	2100	05...	1320	18.0	3.0	1000
FEB									
08...	1250	5.0	.26	2700					

07105945 - ROCK CREEK ABOVE FORT CARSON RESERVATION, CO. (LAT 38 42 26 LONG 104 50 47)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAR , 1984				
03...	1210	.0	.41	240	16...	1310	4.5	.75	140
27...	1040	7.0	.39	160	APR				
NOV					10...	1040	4.0	4.1	120
30...	1120	1.0	.46	120	MAY				
JAN , 1984					09...	1140	7.0	5.7	112
05...	1615	1.5	.49	140	JUN				
FEB					04...	1055	13.0	2.4	122
07...	1325	3.0	.48	140					

07105950 - ROCK CREEK NEAR FORT CARSON, CO. (LAT 38 41 49 LONG 104 49 39)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
MAR , 1984					JUN , 1984				
09...	1325	12.0	4.1	140	04...	1245	14.0	.68	140
APR									
09...	1455	9.0	1.9	155					

07105960 - ROCK CREEK NEAR FOUNTAIN, CO. (LAT 38 39 16 LONG 104 44 48)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					FEB , 1984				
07...	1030	12.5	.66	1220	08...	1520	9.0	.76	650
NOV					APR				
02...	1345	14.0	.80	1100	09...	1325	12.5	.69	740
DEC					MAY				
02...	1425	8.5	.74	1000	14...	1110	15.0	12	300
JAN , 1984					JUN				
06...	1600	9.0	.75	1000	05...	1430	15.0	1.2	900

07108900 - ST. CHARLES RIVER AT VINELAND, CO. (LAT 38 14 44 LONG 104 29 09)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
03...	1430	21.0	15	2510	09...	1140	13.0	68	910
NOV					30...	1045	9.0	118	700
07...	1020	10.0	13	2600	MAY				
DEC					08...	1455	16.0	149	66
06...	1210	6.0	--	2000	JUN				
08...	1020	4.0	12	1350	06...	1125	14.0	2.9	800
JAN , 1984					JUL				
09...	1200	3.0	16	2200	09...	1030	22.5	14	2250
FEB					AUG				
06...	1230	7.0	20	2000	07...	1350	27.5	30	1750
MAR					SEP				
08...	1035	5.0	25	1600	11...	1415	20.5	15	2580

07109500 - ARKANSAS RIVER NEAR AVONDALE, CO. (LAT 38 14 53 LONG 104 23 55)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					MAY , 1984				
12...	1315	16.0	796	610	04...	1410	11.5	5620	580
NOV					09...	1130	13.0	804	780
07...	1355	13.5	555	675	JUN				
DEC					08...	1025	14.0	2940	445
08...	1325	6.0	307	1090	28...	1525	19.0	4330	373
JAN , 1984					JUL				
09...	1505	3.5	363	1080	11...	1345	21.0	3420	305
FEB					27...	1035	18.5	2090	462
06...	1445	7.0	388	995	AUG				
MAR					10...	0830	19.0	2580	365
08...	1310	7.5	291	1080	SEP				
20...	1355	9.5	693	800	14...	1215	20.0	927	538
APR									
09...	1445	9.0	2120	620					

07116500 - HUERFANO RIVER NEAR BOONE, CO. (LAT 38 13 33 LONG 104 15 40)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
12...	1500	23.0	1.9	4500
NOV				
07...	1130	15.0	2.3	4250
DEC				
08...	1505	7.0	37	2490
JAN , 1984				
10...	1225	.0	86	1890
FEB				
07...	1355	7.5	94	1710
MAR				
09...	1330	11.5	207	1280
APR				
10...	1105	18.0	35	1900
MAY , 1984				
09...	1455	28.0	15	2510
JUN				
06...	1425	22.0	33	1690
AUG				
09...	1115	28.0	9.7	3100
21...	1230	29.0	8.2	1350
22...	1315	22.0	276	800
24...	1250	27.0	38	1800
SEP				
12...	1415	27.5	5.2	2200

07119500 - APISHAPA RIVER NEAR FOWLER, CO. (LAT 38 05 28 LONG 103 58 52)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
18...	1525	19.5	4.6	2400
DEC				
06...	1530	6.5	4.3	1590
JAN , 1984				
10...	1130	6.0	3.4	3180
FEB				
08...	1200	7.5	2.8	3140
MAR				
07...	1205	8.5	2.1	3100
APR				
14...	1050	9.0	25	1040
MAY , 1984				
09...	1430	20.0	15	1280
JUN				
07...	1340	21.0	17	1320
JUL				
09...	1255	18.0	17	1460
AUG				
09...	1330	26.0	19	1580
SEP				
12...	1155	22.0	24	1390

07121500 - TIMPAS CREEK AT MOUTH NEAR SWINK, CO. (LAT 38 00 10 LONG 103 39 18)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
18...	1650	15.5	101	1650
JAN , 1984				
05...	1145	7.0	15	3400
FEB				
08...	1035	6.5	13	3620
MAR				
07...	1005	5.0	13	3570
APR				
06...	1035	10.0	157	1380
MAY , 1984				
09...	1305	16.5	137	1240
JUN				
01...	1430	21.0	63	1520
JUL				
13...	1350	25.5	96	1200
AUG				
08...	1435	24.5	96	1340
SEP				
12...	1550	23.5	82	1570

07122400 - CROOKFD ARROYO NEAR SWINK, CO. (LAT 37 58 56 LONG 103 35 52)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
18...	1150	14.0	23	1780
JAN , 1984				
10...	0900	6.0	2.1	3250
FEB				
08...	0850	6.5	2.1	3450
MAR				
07...	0850	5.0	1.6	3460
APR				
06...	0830	7.5	47	1480
MAY , 1984				
09...	1100	14.0	28	1410
JUN				
01...	1305	20.0	23	1400
JUL				
13...	1225	24.0	22	1180
AUG				
08...	1255	23.0	21	1540
SEP				
12...	1430	22.5	26	1480

07123675 - HORSE CREEK NEAR LAS ANIMAS, CO. (LAT 38 05 07 LONG 103 21 10)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
18...	0945	13.0	7.3	3300
DEC				
06...	1320	6.5	7.4	2880
JAN , 1984				
09...	1450	4.0	8.2	4580
FEB				
07...	1445	8.0	9.3	4370
MAR				
06...	1015	3.0	7.7	4900
APR				
05...	1645	13.5	11	3940
MAY , 1984				
01...	1440	15.5	41	2540
31...	1605	24.5	24	3040
JUL				
03...	1140	24.0	64	1400
AUG				
08...	1125	23.0	67	1600
SEP				
12...	1245	22.0	21	3700

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
07124000	- ARKANSAS RIVER AT LAS ANIMAS, CO. (LAT 38 04 51 LONG 103 13 09)								
OCT , 1983					MAY , 1984				
17...	1615	16.0	258	1600	08...	1345	16.5	267	1560
NOV					31...	1130	18.5	2120	929
15...	1525	9.0	100	2250	JUN				
DEC					05...	1320	18.0	2950	787
06...	1115	.0	249	1220	13...	0935	19.5	257	1690
JAN , 1984					JUL				
09...	1125	.0	248	2230	03...	1500	25.0	2090	670
FEB					09...	1605	30.0	469	1150
07...	1230	6.0	186	2630	18...	1605	28.0	485	1180
MAR					AUG				
06...	1130	4.0	125	3000	14...	0925	23.0	115	2000
APR					29...	1010	23.0	1040	970
05...	1020	9.5	104	3840	SEP				
16...	1210	14.0	176	1880	12...	1035	20.0	153	2210
07124200	- PURGATOIRE RIVER AT MADRID, CO. (LAT 37 07 46 LONG 104 38 20)								
OCT , 1983					MAY , 1984				
04...	1345	17.0	40	385	07...	1150	8.5	70	310
NOV					25...	1040	11.5	455	271
08...	1200	11.5	27	435	JUN				
DEC					05...	1250	12.0	455	196
09...	1235	.5	42	405	JUL				
JAN , 1984					03...	1200	21.5	132	319
12...	1420	.0	37	417	AUG				
FEB					07...	1410	21.5	139	264
10...	1200	.0	35	419	SEP				
MAR					07...	1304	20.5	53	308
13...	1145	9.0	75	470					
APR									
17...	1325	19.0	38	419					
07124300	- LONG CANYON CREEK NEAR MADRID, CO. (LAT 37 06 53 LONG 104 36 17)								
OCT , 1983					APR , 1984				
04...	0955	9.0	.72	505	17...	1150	16.0	10	457
NOV					MAY				
08...	1030	11.0	.50	5	07...	1005	7.5	3.8	479
DEC					JUN				
09...	1015	2.0	.60	500	05...	1045	13.5	2.5	494
JAN , 1984					JUL				
12...	1125	2.0	.60	478	03...	1040	22.5	3.0	515
FEB					AUG				
10...	0955	3.0	.55	482	07...	1125	21.0	6.3	273
MAR					SEP				
13...	0955	6.5	.67	480	07...	1115	18.0	1.3	505
07124410	- PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO. (LAT 37 08 37 LONG 104 32 49)								
OCT , 1983					JUN , 1984				
04...	1500	16.0	221	--	05...	1435	11.5	360	--
04...	1535	16.0	221	295	07...	1045	12.5	345	338
27...	1140	13.0	62	310	25...	1525	11.5	360	326
NOV					JUL				
08...	1340	12.0	50	300	03...	1250	15.5	246	--
08...	1405	12.0	50	--	03...	1340	15.5	246	355
DEC					AUG				
09...	1535	4.0	11	318	07...	1600	17.5	178	--
FEB , 1984					07...	1640	17.5	178	259
10...	1400	5.0	.06	400	SEP				
MAY					07...	1415	19.0	328	--
07...	1330	10.0	62	358	07...	1515	19.0	328	320
25...	1320	10.0	342	359					
07126200	- VAN BREMER ARROYO NEAR MODEL, CO. (LAT 37 20 45 LONG 103 57 27)								
OCT , 1983					JUN , 1984				
26...	1430	14.0	.08	2180	20...	1150	27.0	.13	1940
JAN , 1984					JUL				
12...	1640	4.5	.06	2180	10...	1440	27.0	.04	1850
12...	1645	4.5	E.45	--	AUG				
FEB					02...	1545	27.5	.06	1590
16...	1535	7.0	.18	2010	22...	1003	--	.90	--
APR					SEP				
19...	1500	17.5	.15	2010	14...	1820	18.5	4.5	875
19...	1610	17.0	.15	2010	14...	1830	18.5	4.2	875
MAY					14...	1915	18.5	4.1	875
24...	1145	22.0	.16	2020	15...	1615	17.0	5.6	800

07128500 - PURGATOIRE RIVER NEAR LAS ANIMAS, CO. (LAT 38 02 02 LONG 103 12 00)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANECUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
11...	1525	16.5	27	2600	05...	1445	12.5	111	2620
NOV					MAY				
15...	1320	9.5	23	2800	08...	1555	17.0	256	1370
DEC					31...	1425	27.5	29	2380
06...	0940	.0	32	1200	JUL				
JAN , 1984					09...	1400	33.5	5.3	4200
06...	1450	2.0	53	3400	AUG				
12...	1340	.0	71	4220	08...	0915	22.0	9.2	2660
25...	1340	.0	35	4220	28...	1715	29.5	55	2130
FEB					29...	1525	29.5	22	2250
07...	1010	1.0	56	3070	SEP				
MAR					12...	0850	17.5	4.7	4350
06...	1320	5.0	46	3680					

07130500 - ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO. (LAT 38 05 02 LONG 102 55 10)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANECUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
NOV , 1983					MAY , 1984				
09...	1400	11.0	4.6	1540	08...	1130	10.5	337	2180
DEC					30...	1310	17.5	716	2050
02...	1050	.0	3.9	2190	JUN				
JAN , 1984					28...	1335	21.0	1110	1770
05...	1445	5.5	1.9	2850	AUG				
FEB					02...	1115	24.0	576	1530
06...	1155	7.5	2.2	3000	SEP				
MAR					11...	1520	22.0	1010	1450
05...	1210	6.0	1.9	2940					
APR									
04...	1210	9.5	2.3	2950					

07133000 - ARKANSAS RIVER AT LAMAR, CO. (LAT 38 06 24 LONG 102 37 04)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANECUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
12...	1530	15.5	565	1500	04...	1415	15.5	36	4450
NOV					MAY				
07...	1725	15.0	10	3500	07...	1350	15.0	6.4	3990
DEC					JUN				
05...	1610	4.5	42	2480	11...	1610	24.5	666	1960
JAN , 1984					JUL				
05...	1645	5.0	35	4340	12...	1425	25.5	702	1760
FEB					AUG				
06...	1350	76.5	26	4480	02...	0830	20.0	31	2850
MAR					SEP				
05...	1300	8.0	29	4560	11...	1205	20.0	516	1680

07134180 - ARKANSAS RIVER NEAR GRANADA, CO. (LAT 38 05 44 LONG 102 18 [illegible]7)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
12...	1135	14.0	518	1680
NOV				
07...	1345	16.0	55	3300
DEC				
05...	1420	5.0	141	4260
JAN , 1984				
06...	0955	4.0	127	4400
FEB				
06...	1600	10.0	104	4420
MAR				
05...	1550	8.0	106	4250
APR				
04...	1630	12.5	148	4410
MAY				
30...	1520	27.0	9.3	4450
JUL				
12...	1125	24.5	589	1920
17...	1600	26.5	599	2120
AUG				
13...	1650	25.0	428	1790
SEP				
11...	0910	21.0	401	1930

08217500 - RIO GRANDE AT WAGONWHEEL GAP, CO. (LAT 37 46 01 LONG 106 49 51)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
19...	1500	9.0	355	100
JAN , 1984				
12...	1300	.0	102	128
FEB				
14...	1055	.0	117	122
MAR				
21...	1100	.0	154	117
APR				
25...	1555	5.0	322	100
MAY				
23...	1410	8.0	2720	55
JUN				
26...	1450	11.0	2030	50
JUL				
24...	0900	11.0	1510	71
AUG				
21...	0835	13.0	929	75
SEP				
18...	0855	10.5	612	83

06695000 - S PLATTE R AB 11-MILE CANYON RE, NR HARTSEL, CO. (LAT 38 58 03 LONG 105 34 51)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
11...	1310	12.0	25		12...	1325	9.5	54	
27...	1150	6.5	29		25...	1220	10.0	17	
NOV					MAY				
08...	1455	6.0	29		09...	1115	9.0	85	
25...	1235	2.0	30		21...	1525	13.0	110	
DEC					JUN				
06...	1320	.0	35		05...	1615	12.0	376	
20...	1155	.5	37		25...	1340	15.0	424	
JAN , 1984					JUL				
03...	1240	.0	47		16...	1250	18.5	281	
18...	1310	.0	59		30...	1350	19.0	436	
31...	1215	.0	41		AUG				
FEB					14...	1430	19.5	201	
13...	1520	7.5	37		27...	1445	19.0	330	
29...	1215	5.0	60		SEP				
MAR					13...	1235	17.0	38	
13...	1305	9.0	58						
27...	1305	6.0	46						

06696000 - SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO. (LAT 38 54 19 LONG 105 28 22)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
11...	1105	12.0	18		12...	1200	4.0	43	
27...	1015	8.0	28		25...	1045	4.0	68	
NOV					MAY				
08...	1325	7.5	28		09...	0955	6.0	131	
25...	1050	3.0	23		21...	1400	8.0	132	
DEC					JUN				
06...	1130	2.0	28		05...	1425	12.0	360	
20...	1045	3.0	42		25...	1120	15.0	383	
JAN , 1984					JUL				
03...	1030	2.0	40		16...	1110	18.5	301	
18...	1115	2.0	49		30...	1140	18.0	384	
31...	1030	2.5	40		AUG				
FEB					14...	1225	19.0	272	
13...	1025	3.0	39		27...	1140	18.0	654	
29...	1040	3.0	82		SEP				
MAR					13...	1140	16.5	138	
13...	1115	3.0	65						
27...	1110	3.0	115						

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06701500 - SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO. (LAT 39 12 33 LONG 105 16 02)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
19...	1340	6.0	100	
NOV				
08...	1120	5.0	89	
23...	1355	5.0	76	
DEC				
08...	1145	5.0	76	
21...	1120	3.0	90	
JAN , 1984				
04...	0925	3.0	140	
19...	0935	2.0	102	
FEB				
01...	0905	3.0	143	
17...	1120	3.0	108	
MAR				
01...	1315	3.0	144	
14...	0945	3.0	97	
28...	1930	3.0	27	
APR , 1984				
26...	1110	6.0	392	
MAY				
07...	1430	5.0	473	
21...	1015	13.0	673	
JUN				
05...	0905	15.0	829	
22...	1330	15.0	710	
JUL				
02...	1255	19.0	749	
19...	1240	17.0	579	
AUG				
03...	1145	20.0	929	
16...	1235	20.0	548	
29...	1305	18.5	1070	
SEP				
12...	1245	17.5	363	

06706000 - NF SOUTH PLATTE R BELOW GENEVA C, AT GRANT, CO. (LAT 39 27 26 LONG 105 39 29)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
12...	1145	6.0	47	
27...	1540	5.0	47	
NOV				
09...	1045	.0	18	
25...	1555	.0	42	
DEC				
08...	0930	.0	46	
20...	1510	.0	37	
JAN , 1984				
03...	1615	.0	43	
FEB				
01...	1215	.0	26	
15...	1015	.0	17	
29...	1525	.0	18	
MAR				
13...	1540	.5	23	
27...	1555	.0	23	
APR , 1984				
26...	0905	1.0	20	
MAY				
09...	1425	9.0	39	
22...	1225	6.0	244	
JUN				
06...	1230	5.5	265	
22...	1245	9.0	309	
JUL				
02...	1205	9.5	304	
17...	1050	9.0	182	
31...	1235	11.0	287	
AUG				
15...	1335	11.0	135	
28...	1025	8.0	206	
SEP				
14...	1020	7.0	107	

06710500 - BEAR CREEK AT MORRISON, CO. (LAT 39 39 11 LONG 105 11 43)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983				
13...	1200	7.0	47	
26...	1020	3.0	33	
NOV				
02...	0930	5.0	32	
09...	1035	.0	29	
22...	0940	.5	25	
DEC				
07...	1030	.0	28	
23...	0905	.0	22	
JAN , 1984				
05...	1030	.5	25	
17...	1330	.0	24	
FEB				
01...	1300	1.0	16	
14...	1135	1.0	20	
27...	0935	.5	10	
MAR				
01...	1315	3.0	144	
29...	0925	1.5	31	
APR , 1984				
11...	0850	3.0	88	
MAY				
08...	1410	10.0	152	
22...	1350	13.0	281	
JUN				
06...	1145	11.5	122	
19...	0955	14.0	107	
JUL				
03...	1020	15.5	76	
19...	1205	19.0	48	
30...	1435	15.0	131	
AUG				
16...	1215	17.0	116	
29...	1120	13.0	299	
SEP				
11...	0905	11.0	113	
26...	0850	7.0	70	

06720500 - SOUTH PLATTE RIVER AT HENDERSON, CO. (LAT 39 55 19 LONG 104 52 00)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983					APR , 1984				
05...	1230	18.0	159		04...	1240	10.0	786	
17...	1135	15.0	155		17...	1315	13.5	963	
NOV					MAY				
02...	1300	17.0	216		01...	1155	10.0	1650	
17...	1220	11.5	265		16...	1030	13.5	4300	
DEC					29...	1225	19.0	2020	
01...	1105	5.0	224		JUN				
15...	0935	7.0	467		11...	1350	18.0	1730	
27...	1410	4.0	601		28...	1445	18.0	1410	
JAN , 1984					JUL				
09...	1105	7.0	566		13...	0750	19.5	977	
25...	1145	7.0	479		24...	0925	21.0	722	
FEB					AUG				
07...	1030	7.0	561		07...	0940	19.0	1610	
22...	1005	8.0	523		20...	1205	20.0	1910	
MAR					SEP				
06...	0945	6.0	503		05...	1000	19.0	1450	
19...	1255	10.0	597		20...	1100	19.0	702	

06725500 - MIDDLE BOULDER CREEK AT NEDERLAND, CO. (LAT 39 57 42 LONG 105 30 14)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983					APR , 1984				
19...	1015	2.5	16		18...	1245	3.5	20	
NOV					MAY				
01...	1230	4.5	12		15...	1425	9.0	193	
15...	1245	.0	10		30...	1335	11.0	273	
30...	1605	.0	9.8		JUN				
DEC					12...	1435	11.0	142	
14...	1330	.0	8.7		25...	1340	8.0	279	
27...	1255	.0	10		JUL				
JAN , 1984					09...	1145	10.0	214	
10...	1255	.0	7.3		25...	1210	10.0	165	
24...	1400	.0	5.6		AUG				
FEB					07...	1405	13.0	130	
07...	1320	.0	5.7		20...	1420	13.5	93	
27...	1150	.0	6.3		SEP				
MAR					04...	1440	13.5	60	
07...	1210	.0	6.2		17...	1045	7.5	50	
APR									
04...	1305	2.5	13						

06727000 - BOULDER CREEK NEAR ORODELL, CO. (LAT 40 00 23 LONG 105 19 49)

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
OCT , 1983					APR , 1984				
19...	0915	4.5	9.6		18...	1425	7.0	56	
NOV					MAY				
01...	0935	5.0	4.9		15...	1230	10.0	210	
15...	0935	.0	4.8		30...	1520	13.0	315	
DEC					JUN				
01...	1210	.0	7.7		12...	1555	13.0	168	
14...	1615	.5	11		25...	1515	12.0	393	
27...	1400	.0	3.9		JUL				
JAN , 1984					09...	1105	14.5	367	
10...	1420	.0	5.4		25...	1330	16.0	344	
24...	1515	.0	4.0		AUG				
FEB					07...	1625	16.0	269	
07...	1450	.0	6.0		20...	1500	16.0	105	
21...	1035	.0	4.8		SEP				
MAR					04...	1610	16.0	72	
07...	1330	2.5	6.2		17...	1145	12.0	83	
APR									
04...	1420	2.0	13						

06729500 - SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, CO. (LAT 39 55 52 LONG 105 17 43)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					APR , 1984				
20...	1435	10.5	22		19...	0805	4.5	34	
NOV					MAY				
02...	1510	10.5	16		15...	1010	9.5	49	
16...	1145	7.0	40		31...	0935	7.0	216	
DEC					JUN				
01...	1325	5.0	21		13...	1300	10.0	241	
28...	1405	.0	18		28...	1325	11.0	258	
JAN , 1984					JUL				
11...	1255	1.5	16		12...	1110	10.5	240	
24...	1405	.5	12		25...	1455	14.0	136	
FEB					AUG				
08...	1130	2.0	17		08...	1130	15.0	84	
20...	1435	.0	20		21...	1115	13.0	90	
MAR					SEP				
08...	1145	3.0	19		05...	0730	12.5	61	
APR					17...	1350	16.0	28	
05...	1315	7.0	28						

06738000 - BIG THOMPSON R AT MOUTH OF CANYON, NR DRAKE, CO. (LAT 40 25 18 LONG 105 13 34)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					DEC , 1983				
03...	1400	11.0	64		02...	0930	5.0	50	
NOV					JAN , 1984				
03...	1130	7.0	30		02...	1100	5.0	33	
16...	1020	2.0	49						

07123000 - ARKANSAS RIVER AT LA JUNTA, CO. (LAT 37 59 26 LONG 103 31 55)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					JAN , 1984				
04...	1250	15.0	328		19...	1220	.5	138	
19...	1420	14.0	280		FEB				
NOV					02...	1400	4.0	178	
02...	1625	16.0	48		16...	1410	8.0	309	
18...	1415	6.5	26		29...	1500	7.0	100	
DEC					MAR				
01...	1350	1.0	254		15...	1055	12.0	416	
16...	1555	5.0	109		29...	1550	17.0	49	
JAN , 1984									
05...	1440	1.0	123						

07126500 - PURGATOIRE RIVER AT NINEMILE DAM, NR HIGBEE, CO. (LAT 37 44 06 LONG 103 29 45)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					FEB , 1984				
05...	1505	14.0	32		02...	1120	3.0	47	
19...	1605	12.0	49		17...	1440	6.0	45	
NOV					29...	1335	6.0	48	
03...	1725	14.0	16		MAR				
18...	1520	5.0	13		13...	1320	13.0	39	
JAN , 1984					28...	1155	6.0	181	
19...	1355	1.0	28						

08213500 - RIO GRANDE AT THIRTYMILE BRIDGE, NR CREEDE, CO. (LAT 37 43 29 LONG 107 15 18)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					JUN , 1984				
11...	1000	9.5	90		21...	1400	8.0	1080	
NOV					JUL				
04...	1200	9.0	14		05...	1500	8.0	1120	
25...	1100	3.0	4.8		AUG				
MAY , 1984					27...	1630	14.0	449	
14...	1300	3.5	322						
26...	1700	9.0	1750						

08214500 - NORTH CLEAR CREEK BL CONTINENTAL RESERVOIR, CO. (LAT 37 53 18 LONG 107 12 10)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983					JUN , 1984				
11...	1200	7.0	16		21...	1200	9.5	77	
NOV					JUL				
04...	1030	7.5	.18		05...	1230	10.0	48	
15...	1100	.5	.17		AUG				
APR , 1984					27...	1300	13.0	64	
17...	1000	4.0	.23						

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DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)
08218500 - GOOSE CREEK AT WAGONWHEEL GAP, CO. (LAT 37 45 07 LONG 106 49 46)									
OCT , 1983					MAY , 1984				
07...	1230	10.5	48		31...	1330	9.0	298	
NOV					JUN				
16...	1130	1.0	37		13...	1000	9.0	175	
DEC					JUL				
07...	0935	.0	24		23...	0930	13.5	50	
APR , 1984					AUG				
17...	1500	5.0	65		08...	1300	15.0	54	
08219500 - SOUTH FORK RIO GRANDE AT SOUTH FORK, CO. (LAT 37 39 25 LONG 106 38 55)									
OCT , 1983					APR , 1984				
07...	1100	7.5	100		05...	1700	4.0	97	
28...	1200	5.5	59		MAY				
NOV					31...	1130	7.0	1410	
16...	1300	.0	50		JUN				
DEC					13...	1200	9.0	729	
07...	1300	.0	53		JUL				
JAN , 1984					24...	1130	15.5	118	
10...	1330	.0	41		AUG				
FEB					08...	1400	17.0	115	
17...	1300	.0	46		28...	0800	11.0	150	
MAR									
14...	1000	.0	48						
08240000 - RIO GRANDE AB MOUTH TRINCHERA C NR LASAUSES, CO. (LAT 37 18 58 LONG 105 44 32)									
OCT , 1983					APR , 1984				
19...	1200	9.0	56		05...	1100	7.0	451	
NOV					18...	1400	7.5	348	
15...	1400	4.0	88		MAY				
DEC					25...	1230	16.0	1030	
14...	1400	.0	239		JUL				
JAN , 1984					16...	1300	20.0	277	
09...	1200	.0	209		AUG				
FEB					07...	1230	25.0	123	
16...	1500	.0	216						
MAR									
13...	0930	.0	232						
08245000 - CONEJOS RIVER BELOW PLATORO RESERVOIR, CO. (LAT 37 21 18 LONG 106 32 37)									
OCT , 1983					JUN , 1984				
11...	1530	9.5	63		03...	1030	6.0	859	
31...	1030	7.0	16		AUG				
MAY , 1984					13...	1230	8.0	29	
04...	1000	3.0	29						
08246500 - CONEJOS RIVER NEAR MOGOTE, CO. (LAT 37 03 14 LONG 106 11 13)									
OCT , 1983					APR , 1984				
03...	1130	7.0	269		20...	1230	3.5	299	
10...	1300	10.5	168		MAY				
20...	1500	8.0	112		01...	1230	8.5	204	
NOV					10...	1300	8.0	696	
01...	0900	4.0	80		15...	1500	9.0	1610	
14...	1400	5.0	73		21...	1600	9.5	1840	
21...	1600	.5	64		JUN				
DEC					01...	1100	8.5	2720	
01...	1100	.0	79		11...	1300	10.5	860	
12...	1400	.0	75		20...	1230	9.0	1160	
20...	1400	.0	67		JUL				
JAN , 1984					02...	1630	15.0	902	
03...	1630	.0	60		10...	1600	14.0	512	
16...	1600	.0	57		20...	1330	19.0	270	
FEB					AUG				
01...	1500	.0	54		01...	1300	18.0	177	
15...	1400	.0	56		10...	1300	18.0	149	
MAR					20...	1400	19.0	199	
01...	1500	.0	55		SEP				
15...	1400	1.0	83		04...	1200	14.5	148	
APR					10...	1400	15.5	69	
02...	1600	4.5	122						
10...	1230	7.0	115						

08247500 - SAN ANTONIO RIVER AT ORTIZ, CO. (LAT 36 59 35 LONG 106 02 17)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
03...	0900	6.5	3.1	
10...	1130	8.0	1.9	
20...	1330	7.5	2.8	
NOV				
01...	1130	5.5	3.0	
14...	1130	2.5	3.9	
21...	1430	.0	4.0	
DEC				
01...	1430	.0	4.1	
12...	1230	.0	4.0	
20...	1630	.0	4.9	
JAN , 1984				
03...	1500	.0	1.4	
16...	1400	.0	4.2	
FEB				
01...	1300	.0	4.0	
15...	1200	.0	4.6	
MAR				
01...	1430	.0	4.2	
15...	1230	.0	4.9	
26...	1330	.5	14	
APR , 1984				
02...	1430	.5	12	
10...	1530	6.5	38	
20...	1600	3.0	105	
MAY				
01...	1500	7.5	66	
10...	0900	3.0	403	
21...	1230	11.0	176	
JUN				
01...	1530	16.5	44	
11...	0930	11.5	15	
20...	0800	13.0	4.9	
JUL				
02...	1400	22.0	4.8	
10...	1430	20.5	3.7	
20...	1100	22.0	.39	
AUG				
01...	1100	20.0	4.9	
10...	1100	18.5	1.3	
20...	1230	20.0	4.7	
SEP				
04...	1030	15.0	.07	

08248000 - LOS PINOS RIVER NEAR ORTIZ, CO. (LAT 36 58 56 LONG 106 04 23)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
03...	1000	5.5	61	
10...	1030	8.5	34	
20...	1230	7.0	25	
NOV				
01...	1030	4.5	24	
14...	1230	3.0	22	
21...	1300	1.5	26	
DEC				
01...	1300	.0	25	
12...	1100	.0	23	
20...	1500	.0	22	
JAN , 1984				
03...	1300	.0	24	
16...	1300	.0	12	
FEB				
15...	1100	.0	18	
MAR				
01...	1300	.0	16	
15...	1100	.0	24	
26...	1100	.5	32	
APR				
02...	1300	.5	34	
APR , 1984				
10...	1400	9.0	41	
20...	1430	5.0	177	
MAY				
01...	1400	6.5	130	
10...	1030	3.0	694	
21...	1200	7.5	1150	
JUN				
01...	1400	9.5	873	
11...	1030	9.0	344	
20...	0930	10.0	243	
JUL				
02...	1300	18.0	133	
10...	1300	20.0	71	
20...	1000	21.5	52	
AUG				
01...	1000	19.0	42	
10...	1000	18.0	33	
20...	1200	19.5	57	
SEP				
04...	0930	13.5	29	
10...	1130	14.0	18	

08249000 - CONEJOS RIVER NEAR LASAUSES, CO. (LAT 37 18 01 LONG 105 44 47)

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
OCT , 1983				
03...	1200	10.0	61	
10...	0930	11.0	5.8	
20...	0830	9.5	5.4	
NOV				
01...	1200	6.5	18	
14...	1400	7.5	21	
21...	1100	3.5	28	
DEC				
01...	1000	1.0	26	
12...	1400	3.0	77	
JAN , 1984				
03...	1500	.0	85	
16...	1600	.0	86	
FEB				
02...	1100	.0	110	
16...	1330	2.0	80	
MAR				
01...	1400	2.5	81	
MAR , 1984				
15...	1430	6.5	163	
APR				
02...	1500	5.0	193	
10...	1100	7.5	227	
25...	1500	9.5	722	
MAY				
01...	1400	13.0	271	
21...	0930	13.5	1130	
25...	0900	14.0	1520	
JUN				
01...	1030	14.0	1110	
11...	1400	16.0	400	
20...	1430	17.5	499	
JUL				
02...	0800	18.5	215	
AUG				
20...	1430	22.5	90	

384313104431801 - SC01506625AAD WIDEFIELD NO. 14.

LOCATION.--Lat 38° 43' 13", long 104° 43' 18", in SE¼NE¼NE¼ sec. 25, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

WELL CHARACTERISTICS.--Municipal well, diameter 18 in, depth 48 ft, screened 37 to 48 ft.

PERIOD OF RECORD.--January 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
NOV									
18...	1430	1240	7.4	12.0	--	--	--	--	--
FEB									
17...	1355	1210	7.4	13.5	--	--	--	--	--
MAY									
25...	1445	1290	7.3	14.0	--	--	--	--	--
SEP									
10...	1645	1060	7.3	13.5	370	140	95	32	76

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV									
18...	--	--	--	--	44	--	--	976	--
FEB									
17...	--	--	--	--	43	--	--	--	--
MAY									
25...	--	--	--	--	46	--	--	--	--
SEP									
10...	2	3.5	228	250	35	.90	18	--	650

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV								
18...	--	11	.080	--	--	--	--	--
FEB								
17...	--	9.7	--	--	--	--	--	--
MAY								
25...	--	9.9	--	--	--	--	--	--
SEP								
10...	<.010	7.4	.670	-.07	.60	.310	13	3

EL PASO COUNTY

384407104434801 - SC01506624BAD1 WIDEFIELD NO. 4.
LOCATION.--Lat 38°44'07", long 104°43'48", in SE¼NE¼NE¼ sec. 24, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 71 ft., screened 41 to 71 ft.
DATUM.--Altitude of land-surface is 5,685 ft.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
NOV												
18...	1415	662	7.3	12.0	27	462	--	--	7.0	.100	--	--
MAY												
25...	1410	750	7.2	13.5	29	--	--	--	6.8	--	--	--
SEP												
12...	1315	735	6.7	13.5	27	--	6.3	.010	6.3	.720	.08	.80

QUALITY OF GROUND WATER

EL PASO COUNTY

384458104442601 - SC01506614AAD SECURITY NO. 2.
LOCATION.--Lat 38°44'58", long 104°44'26", in SE¼NE¼NE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 78 ft., screened 43 to 78 ft.
DATUM.--Altitude of land-surface is 5,270 ft.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
NOV											
18...	1305	567	6.8	12.0	25	389	--	6.5	.060	--	--
FEB											
17...	1205	569	7.0	14.0	23	--	--	5.9	--	--	--
MAY											
25...	1105	568	6.7	14.0	18	--	--	7.7	--	--	--
SEP											
10...	1500	520	6.8	13.0	16	--	<.010	6.9	.680	-.08	.60

QUALITY OF GROUND WATER

EL PASO COUNTY

384535104450801 - SC01506611BCD2 VENETUCCI NO. 3.
LOCATION.--Lat 38°45'35", long 104°45'08", in SE¼SW¼NW¼ sec. 11, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Irrigation well, diameter 24 in., depth 80 ft., screened unknown.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
NOV								
18...	1240	418	7.0	12.5	12	284	8.0	.080
FEB								
17...	1510	435	6.9	13.5	11	--	8.2	--

EL PASO COUNTY

384610104453501 - SC01506603DDB SECURITY NO. 14.
LOCATION.--Lat 38°46'10", long 104°45'35", in NW¼SE¼SE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 80 ft., screened 39 to 80 ft.
DATUM.--Altitude of land-surface is 5,780 ft.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
NOV											
18...	1330	522	7.3	12.0	21	344	--	6.5	.050	--	--
FEB											
17...	1140	565	7.2	13.0	21	--	--	6.7	--	--	--
MAY											
25...	1140	600	7.2	13.5	20	--	--	9.1	--	--	--
SEP											
12...	1045	570	7.6	12.5	22	--	<.010	6.6	.660	.44	1.1

QUALITY OF GROUND WATER

EL PASO COUNTY

384617104455901 - SC01506603CAD STRATMOOR HILLS NO. 4.
LOCATION.--Lat 38°46'17", long 104°45'59", in SE¼NE¼SW¼ sec. 3, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.
AQUIFER.--Widefield of Fountain Alluvium.
WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 49 ft., screened 29 to 49 ft.
DATUM.--Altitude of land-surface is 5,760 ft.
PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
NOV											
18...	1215	865	7.2	13.5	38	609	--	6.0	.030	--	--
FEB											
17...	1250	832	7.3	13.5	34	--	--	7.0	--	--	--
MAY											
25...	1200	860	7.0	13.5	33	--	--	6.7	--	--	--
SEP											
10...	1330	900	7.2	14.0	35	--	<.010	6.8	.620	.68	1.3

LOGAN COUNTY

403214102560401 - SB00705034AAD DORVIN SCHEPLER

LOCATION.--Lat 40°32'14", long 102°56'04", in SE¼NE¼NE¼ sec.34, T.7 N., R.50 W., Logan County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
AUG												
21...	1325	8.0	140	0	39	10	18	21	.7	6.7	141	10

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG												
21...	14	.80	44	230	.31	<.010	3.9	.040	<.20	<.010	6	<1

LOGAN COUNTY

403442102453801 - SB00704818ADA CLETUS WERNSMAN

LOCATION.--Lat 40°34'42", long 102°45'38", in NE¼SE¼NE¼ sec.18, T.7 N., R.48 W., Logan County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
AUG								
21...	1230	8.1	100	0	30	6.4	4.0	7

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG									
21...	.2	5.2	102	.90	5.2	.80	40	150	.21

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG								
21...	<.010	1.4	.030	.17	.20	<.010	4	<1

PHILLIPS COUNTY

402720102131401 - SB00604425CCD BOB MAILANDER

LOCATLION.--Lat 40°27'20", long 102°13'14", in SE¼SW¼SW¼ sec.25, T.6 N., R.44 W., Phillips County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 02...	1023	365	8.0	18.0	170	27	50	10	5.9

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
AUG 02...	7	.2	8.8	139	8.3	6.2	.50	51	220

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 02...	.30	<.010	6.6	.070	.43	.50	<.010	5	2

PHILLIPS COUNTY

402730102130000 - SB00604425CBD BOB MAILANDER

LOCATION.--Lat 40°27'30", long 102°13'00", in SE¼NW¼SW¼ sec.25, T.6 N., R.44 W., Phillips County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Irrigation well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 02...	0950	280	8.2	15.5	120	0	33	9.0	7.5

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
AUG 02...	11	.3	6.8	124	.60	7.6	.80	52	190

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 02...	.26	<.010	1.2	.080	.22	.30	<.010	4	1

PHILLIPS COUNTY

403447102373002 - SB00704716BCB2 MARVIN FUESZ

LOCATION.--Lat 40°34'47", long 102°37'30", IN NW¼SW¼NW¼ sec.16, T.7 N., R.47 W., Phillips County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--September 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
SEP									
12...	0925	350	8.0	130	0	37	9.9	13	17

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
SEP									
12...	.5	6.7	140	8.0	12	.80	42	210	.29

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP								
12...	<.010	3.1	.020	.98	1.0	<.010	16	<1

PHILLIPS COUNTY

403138102283001 - SB00604603AAA MARVIN JAMES

LOCATION.--Lat 40°31'38", long 102°28'30", in NE¼NE¼NE¼ sec.3, T.6 N., R.46 W., Phillips County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
08...	1015	280	8.0	20.5	120	23	37	7.1	5.6

DATE	PERCENT SODIUM	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
08...	9	.2	5.2	99	2.8	8.2	.20	30	160

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
08...	.21	<.010	7.8	<.010	.50	.020	29	2

PHILLIPS COUNTY

403510102125601 - SB00704412CDD MERRILL GODDARD

LOCATION.--Lat 40°35'10", long 102°12'56", in SE¼SE¼SW¼ sec.12, T.7 N., R.44 W., Phillips County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 07...	1056	290	7.9	15.5	110	0	32	6.3	13

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 07...	20	.6	6.5	118	2.9	12	.70	51	200

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 07...	.27	<.010	1.7	<.010	.20	<.010	10	5

PHILLIPS COUNTY

404019102390701 - SB00804707DCD PAT GARRETSON

LOCATION.--Lat 40°40'19", long 102°39'07", in SE¼SW¼SE¼ sec.7, T.8 N., R.47 W., Phillips County, Hydrologic Unit 10250005.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 07...	1230	420	7.9	16.0	180	19	50	13	11

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 07...	11	.4	8.1	160	9.9	21	.60	41	250

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 07...	.34	<.010	3.7	<.010	.40	<.010	8	2

PHILLIPS COUNTY

404038102133801 - SB00804411BBA WILLIS DEMMEL

LOCATION.--Lat 40°40'38", long 102°13'38", in NE¼NW¼NW¼ sec.11, T.8 N., R.44 W., Phillips County, Hydrologic Unit 10250006

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG								
21...	1130	8.0	130	0	36	8.8	17	21

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
AUG									
21...	.7	7.3	142	4.3	17	.60	54	230	.31

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
21...	<.010	2.1	.030	.17	.20	<.010	29	2

SEDGEWICK COUNTY

404534102284501 - SB00904616ADA MARVIN SWITZER

LOCATION.--Lat 40°45'34", long 102°28'45", in NE¼SE¼NE¼ sec.16, T.9 N., R.46 W., Sedgewick County, Hydrologic Unit 10250006.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
07...	1320	410	7.9	16.0	180	18	50	13	8.2

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
07...	9	.3	7.9	161	15	14	.60	42	250

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
07...	.34	<.010	4.1	.010	.29	.30	.020	11	1

SEDGEWICK COUNTY

404535102241901 - SB00904518BDB1 WAYNE AUSTIN

LOCATION.--Lat 40°45'35", long 102°24'19", in NW¼SE¼NW¼ sec.18, T.9 N., R.45 W., Sedgewick County, Hydrologic Unit 10250006.

WELL CHARACTERISTICS.--Irrigation well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
07...	1400	320	8.1	17.5	130	0	36	9.6	15

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
07...	19	.6	7.3	139	4.4	14	.80	43	210

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
07...	.29	<.010	2.2	.010	.59	.60	<.010	<3	<1

SEDGEWICK COUNTY

404644102160801 - SB00904408AAD JOE KINNIE

LOCATION.--Lat 40°46'44", long 102°16'08", in SE¼NE¼NE¼ sec.8, T.9 N., R.44 W., Sedgewick County, Hydrologic Unit 10250006.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
07...	1445	330	8.0	16.0	120	0	32	8.9	21

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
07...	27	.9	7.7	145	3.8	15	.80	44	220

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
07...	.30	<.010	1.7	<.010	[illegible]	.30	<.010	4	<1

BEST COPY AVAILABLE

SEDGEWICK COUNTY

405052102064901 - SB01004315ADA EUGENE BAUERLE

LOCATION.--Lat 40°50'52", long 102°06'49", in NE¼SE¼NE¼ sec.15, T.10 N., R.43 W., Sedgewick County, Hydrologic Unit 10250006.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
AUG								
21...	0940	8.0	150	0	42	11	12	14

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG									
21...	.4	6.9	155	3.7	13	.70	42	220	.31

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG								
21...	<.010	2.3	.030	.17	.20	<.010	6	<1

SEDGEWICK COUNTY

405404102085801 - SB01104328CBB MARVIN MILES

LOCATION.--Lat 40°54'04", long 102°08'58", in NW¼NW¼SW¼ sec.28, T.11 N., R.43 W., Sedgewick County, Hydrologic Unit 10250006.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
AUG								
21...	0900	8.0	140	0	40	10	12	15

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG									
21...	.5	7.1	152	2.8	10	.70	42	220	.29

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG								
21...	<.010	2.4	.030	.37	.40	<.010	4	<1

YUMA COUNTY

395327102201801 - SC00204407DDC ROBERT WINGFIELD

LOCATION.--LAT 39°53'27", LONG 102°20'18", IN SW¼SE¼SE¼ SEC.7, T.2 S., R.44 W., YUMA COUNTY, HYDROLOGIC UNIT 10250001

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
09...	1345	750	7.8	15.0	280	86	70	25	30

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
09...	18	.8	12	192	37	62	1.7	57	410

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
09...	.56	<.010	18	<.010	1.1	<.010	31	2

YUMA COUNTY

395645102184701 - SC00104429BBD HENRY WILTFANG

LOCATION.--Lat 39°56'45", long 102°18'47", in SE¼NW¼NW¼ sec.28, T.1 S., R.44 W., Yuma County, Hydrologic Unit 10250001.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
08...	1430	380	8.0	16.0	160	0	39	14	15

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
08...	16	.5	8.6	172	2.6	12	1.7	54	250

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
08...	.34	<.010	1.6	<.010	.30	<.010	7	<1

YUMA COUNTY

395831102120701 - SC00104316BBB HAROLD BOWMAN

LOCATION.--Lat 39°58'31", long 102°12'07", in NW¼NW¼NW¼ sec.16, T.1 S., R.43 W., Yuma County, Hydrologic Unit 10250001.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--September 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP 07...	1116	675	8.0	16.0	260	110	64	24	17

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
SEP 07...	12	.5	12	148	24	27	1.4	58	320

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP 07...	.43	<.010	31	.020	.98	1.0	<.010	9	<1

YUMA COUNTY

400116102361301 - SB00104726CCB GEORGE PLETCHER

LOCATION.--Lat 40°01'16", long 102°36'13", in NW¼SW¼SW¼ sec.26, T.1 N., R.47 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 08...	1240	330	8.0	16.5	140	0	35	13	11

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 08...	14	.4	8.4	146	2.6	12	1.1	57	230

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 08...	.31	<.010	2.1	<.010	.50	<.010	4	<1

YUMA COUNTY

400122102292401 - SB00104626CBC CLAYTON ROUNDTREE

LOCATION.--Lat 40°01'22", long 102°29'24", in SW¼NW¼SW¼ sec.26, T.1 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 08...	1345	340	8.0	16.0	160	0	48	8.7	12

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 08...	14	.4	6.4	164	1.2	9.0	.60	58	240

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 08...	.33	<.010	1.8	<.010	.40	<.010	7	2

YUMA COUNTY

400213102240601 - SB00104521DAC ALAN FONT

LOCATION.--Lat 40°02'13", long 102°24'06", in SW¼NE¼SE¼ sec.21, T.1 N., R.45 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 09...	1440	320	8.1	16.5	130	0	34	12	11

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 09...	14	.4	7.7	149	1.4	9.7	1.2	57	220

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 09...	.30	<.010	1.0	<.010	.30	<.010	4	<1

BEST CC VAILABLE

YUMA COUNTY

400234102312800 - SB00104621BBD GEORGE PLETCHER

LOCATION.--Lat 40°02'34", long 102°31'28", in SE¼NW¼NW¼ sec.21, T.1 N., R.46 W., Yuma County Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Irrigation well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
01...	1415	318	8.1	16.5	130	0	34	11	11

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
01...	15	.4	8.3	139	1.3	7.8	1.1	56	210

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
01...	.29	<.010	1.2	.080	.32	.40	.030	8	2

YUMA COUNTY

400257102305701 - SB00104616DCA HARVEY PLETCHER

LOCATION.--Lat 40°02'57", long 102°30'57", in NE¼SW¼SE¼ sec.16, T.1 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Stock well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG										
01...	1440	650	7.9	15.5	250	91	67	20	17	12

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
AUG									
01...	.5	12	159	26	20	1.1	56	310	.43

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
01...	<.010	5.7	.070	<.20	.020	1.2	7	15	2

YUMA COUNTY

400310102300001 - SB00104615DBB GAYLORD HAGEMAN

LOCATION.--Lat 40°03'10", long 102°30'00", in NW¼NW¼SE¼ sec.15, T.1 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Stock well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG										
01...	1320	310	8.1	15.5	130	0	32	11	11	15

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
AUG										
01...	.4	7.8	138	1.2	7.9	1.1	56	210	.29	<.010

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
01...	1.0	.080	.12	.20	.020	.30	10	36	3

YUMA COUNTY

400430102151301 - SB00104411ABB DR WILLIAM KOLLING

LOCATLION.--Lat 40°04'30", long 102°15'13", in NW¼NW¼NE¼ sec.11, T.1 N., R.44 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Stock well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
09...	1600	1150	7.9	14.5	410	78	110	32	110

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
09...	36	2	17	329	42	260	1.8	52	820

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
09...	1.1	<.010	8.0	.030	.87	.90	.070	26	150

YUMA COUNTY

400450102045101 - SB00104205DBD WARREN NOFFSINGER

LOCATION.--Lat 40°04'50", long 102°04'51", in SE¼NW¼SE¼ sec.5, T.1 N., R.42 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
09...	1225	460	7.9	21.0	190	0	60	10	17

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
09...	16	.6	8.0	217	2.2	20	.60	57	310

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
09...	.42	<.010	.50	<.010	.20	.120	4	4

YUMA COUNTY

400714102290701 - SB00204623CDC WANDA WILLIAMS

LOCATION.--Lat 40°07'14", long 102°29'07", in SW¼SE¼SW¼ sec.23, T.2 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic Well.

PERIOD OF RECORD.--September 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP									
19...	1100	320	7.9	15.5	120	0	34	9.4	9.1

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
SEP									
19...	13	.4	7.6	142	1.8	9.8	1.3	57	220

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
19...	.29	<.010	1.0	.020	.18	.20	<.010	4	1

YUMA COUNTY

400900102231201 - SB00204510DCC RAY GELVIN

LOCATION.--Lat 40°09'00", long 102°23'12", in SW¼SW¼SE¼ sec.10, T.2 N., R.45 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 08...	1730	340	8.0	15.5	150	0	42	10	9.8

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 08...	12	.4	8.4	155	2.3	8.8	.90	54	230

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 08...	.31	<.010	2.5	<.010	.50	<.010	17	2

YUMA COUNTY

401228102290601 - SB00304623CCD JOHN NEWBANKS

LOCATION.--Lat 40°12'28", long 102°29'06", in SE¼SW¼SW¼ sec.23, T.3 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 08...	1110	380	8.0	16.0	160	5	42	13	13

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 08...	14	.5	9.4	154	8.4	13	1.0	58	250

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 08...	.34	<.010	3.1	<.010	.30	<.010	8	2

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YUMA COUNTY

401702102274301 - SB00304625CDC CONRAD (CORRAL #1)

LOCATION.--Lat 40°17'02", long 102°27'43", in SW¼SE¼SW¼ sec.25, T.3 N., R.46 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Stock well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG										
01...	1550	380	8.0	16.0	150	0	37	14	15	17

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
AUG										
01...	.6	10	157	3.0	18	1.0	60	250	.34	<.010

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG									
01...	1.6	.080	.32	.40	.010	.40	4	62	2

YUMA COUNTY

401850102150201 - SB00404414DBA HARRY BLECHA

LOCATION.--Lat 40°18'50", long 102°15'02", in NE¼NW¼SE¼ sec.14, T.4 N., R.44 W., Yuma County Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG												
25...	0850	8.0	170	44	46	13	7.9	9	.3	7.3	125	5.4

DATE	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG												
25...	44	.60	54	250	.34	<.010	3.3	<.010	.70	<.010	6	<1

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YUMA COUNTY

401923102032001 - SB00404210CDC GEORGE KERST

LOCATION.--Lat 40°19'23", long 102°03'20", in SW¼SE¼SW¼ sec.10, T.4 N., R.42 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 09...	1125	380	8.0	16.5	160	0	45	11	9.9

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 09...	11	.4	8.0	163	1.3	13	.70	56	240

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 09...	.33	<.010	2.1	<.010	<.20	<.010	5	1

YUMA COUNTY

402124102182801 - SB00504431DBC DAVE BROPHY

LOCATION.--Lat 40°21'24", long 102°18'28", in SW¼NW¼SE¼ sec.31, T.5 N., R.43 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH LAB (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 25...	0920	7.9	170	12	50	12	9.0	10

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
AUG 25...	.3	8.0	163	3.2	11	.60	53	240	.33

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 25...	<.010	5.7	.010	.69	.70	<.010	6	<1

YUMA COUNTY

402350102033601 - SB00504217DCC BILL STROH

LOCATION.--Lat 40°23'50", long 102°03'36", in SW¼SW¼SE¼ sec.17, T.5 N., R.42 W., Yuma County, Hydrologic Unit 10250002.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
09...	1045	420	7.9	15.5	180	5	50	13	10

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
09...	10	.3	10	174	2.4	24	.70	56	270

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
09...	.37	<.010	2.6	<.010	.40	.030	5	1

YUMA COUNTY

404008102142501 - SC00104306AAB DUARD FIX

LOCATION.--Lat 40°40'08", long 102°14'25", in NW¼NE¼NE¼ sec.6, T.1 S., R.43 W., Yuma County, Hydrologic Unit 10250001.

WELL CHARACTERISTICS.--Domestic well.

PERIOD OF RECORD.--August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
08...	1545	420	8.0	16.0	180	14	47	14	15

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG									
08...	15	.5	9.7	161	6.0	17	1.4	58	260

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG								
08...	.36	<.010	9.2	<.010	.30	<.010	6	2

ADAMS COUNTY

395727104071701

SC 1-60-17CDD2. Carl Sanden. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 87 ft. MP, 1.7 ft, above lsd. Altitude of land surface, 4,830.8 ft. Records available: 1942-84.

Highest water level, 25.09 ft, below lsd, Nov. 19, 1942; lowest water level, 50.63 ft, below lsd, June 10, 1982.

Apr. 5, 1984 48.61 ft

395643104183301

SC 1-62-22DCA. Charles B. Nordloh. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 82 ft. MP, 0.8 ft, below lsd. Altitude of land surface, 4,994 ft. Records available: 1946-84.

Highest water level, 44.21 ft, below lsd, Nov. 25, 1949; lowest water level, 61.9 ft, below lsd, Mar. 12, 1973.

Apr. 5, 1984 60.25 ft

ALAMOSA COUNTY

372154105555401

NA36- 9-13AAA. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in. Depth, 10 ft. MP, 2.3 ft, above lsd. Altitude of land surface, 7,558.1 ft. Records available: 1949-64, 1966-75, 1980-84.

Highest water level, 0.07 ft, below lsd, May 5, 1968; lowest water level, 6.17 ft, below lsd, Jan. 6, 1964.

Jan. 17, 1984 3.07 ft

3734091060[illegible]01

NA39- 9-31CCC. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in. Depth, 10 ft. MP, 1.70 ft, above lsd. Altitude of land surface, 7,567.4 ft. Records available: 1948-64, 1966-75, 1977, 1980, 1984.

Highest water level, 1.42 ft, below lsd, June 26, 1962; lowest water level, 5.78 ft, below lsd, Jan. 27, 1969.

Jan. 16, 1984 4.84 ft

BACA COUNTY

373058102151500

SC29-43-15CCB. James Thompson. Drilled observation artesian well in Cheyenne Sandstone Member of Purgatoire Formation. Diameter, 1.25 in. Depth, 343 ft, (reported). MP, 1.40 ft, above lsd. Altitude of land surface, 3,913 ft. Records available: 1955-84.

Highest water level, 48.60 ft, below lsd, Jan. 16, 1975; lowest water level, 68.74 ft, below lsd, Feb. 2, 1978.

Feb. 17, 1984 61.67 ft

BENT COUNTY

380228103105600

SC23-52-13DDC. B. F. Owens. Drilled stock water-table well in valley-fill deposits. Diameter, 6 in. Depth, 19 ft. MP, 2.0 ft, above lsd. Altitude of land surface, 3,895 ft. Records available: 1959-75, 1979-84.

Highest water level, 8.6 ft below lsd, Dec. 4, 1962; lowest water level, 16.6 ft, below lsd, Nov. 13, 1964.

Mar. 6, 1984 14.48 ft

ELBERT COUNTY

391717103475001

SC 9-57- 8ABB. J. C. Mattson. Drilled observation water-table well in alluvium. Diameter, 6 in. Depth, 28 ft. MP, 0.20 ft, above lsd. Altitude of land surface, 5,475 ft. Records available: 1945-84.

Highest water level, 5.00 ft, below lsd, July 2, 1947; lowest water level, 7.92 ft below lsd, Mar. 2, 1977.

May. 18, 1984 5.23 ft

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EL PASO COUNTY

390441104184501 SC11-62-22ADC. Anthony Eurich. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 44 ft. MP, 0.80 ft, above lsd. Altitude of land surface, 6,364.8 ft. Records available: 1945-84.

Highest water level, 5.49 ft, below lsd, Aug. 9, 1947; lowest water level, 8.48 ft below lsd, July 11, 1952.

Mar. 28, 1984 6.15 ft

HUERFANO COUNTY

373922104501401 SC-27-67-36ACB. State of Colorado. Drilled stock water-table well in Trinidad Sandstone. Diameter, 7 in. Depth, 62 ft. MP, 2.2 ft, above lsd. Altitude of land surface, 6,282 ft. Records available: 1950-75, 1980, 1983-84.

Highest water level, 41.33 ft, below lsd, May 7, 1980; lowest water level, 48.8 ft below lsd, Apr. 26, 1955.

May. 9, 1984 41.73 ft

KIOWA COUNTY

383230102274601 SC17-45-31ABA. U.S. Government. Bored observation water-table well in valley-fill deposits. Diameter, 1.25 in. Depth, 11 ft. MP, 1.5 ft, above lsd. Altitude of land surface, 3,954.4 ft. Records available: 1959-84.

Highest water level, 4.99 ft, below lsd, Apr. 27, 1983; lowest water level, 8.6 ft below lsd, Nov. 10, 1960.

Jan. 4, 1984 5.59 ft

KIT CARSON COUNTY

392230103052000 SC 8-51-10ABB2. Drilled irrigation water-table well in alluvium and Meade Formation. Diameter, 18 in. Depth, 74 ft. MP, 0.1 ft, above lsd. Altitude of land surface, 4,870 ft. Records available: 1951-84.

Highest water level, 30.4 ft, below lsd, Jan. 15, 1952; lowest water level, 40.64 ft, below lsd, Jan. 8, 1979.

Jan. 19, 1984 37.48 ft

391110102030100 SC10-42-12DCD. U.S. Government. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 273 ft. MP, 3.30 ft, above lsd. Altitude of land surface, 3,997.7 ft. Records available: 1955-84.

Highest water level, 101.67 ft, below lsd, Aug. 12, 1955; lowest water level, 132.50 ft, below lsd, Jan. 11, 1983.

Jan. 21, 1984 133.24 ft

LARIMER COUNTY

402426105013001 SB 5-68-17AAB. George Peak. Drilled irrigation water-table well in alluvium. Diameter, 48 in. Depth, 24 ft. MP, 1.0 ft, above lsd. Altitude of land surface, 4,948 ft. Records available: 1941-84.

Highest water level, 5.43 ft, below lsd, Oct. 27, 1947; lowest water level, 14.45 ft below lsd. Apr. 20, 1949.

Mar. 28, 1984 10.64 ft

403333104585001 SB 7-68-23CBB1. W. A. Scott. Drilled observation water-table well in alluvium. Diameter, 48 in. Depth, 52 ft. MP, 2.70 ft, above lsd. Altitude of land surface, 4,902 ft. Records available: 1941-79, 1982-84.

Highest water level, 4.93 ft below lsd. Nov. 6, 1957; lowest water level, 10.5 ft below lsd, Mar. 15, 1975.

Mar. 28, 1984 4.43 ft

LARIMER COUNTY--Continued

404517105014201 SB 9-68-17BAA. Harlan Seaworth. Drilled irrigation water-table well in alluvium. Diameter, 20 in. Depth, 92 ft. MP, 0.40 ft, above lsd. Altitude of land surface, 5,329 ft. Records available: 1939-79, 1983-84.

Highest water level, 29.02 ft below lsd, Apr. 3, 1959; lowest water level, 64.45 ft, below lsd, Nov. 9, 1956.

Mar. 28, 1984 29.35 ft

LINCOLN COUNTY

385724103155601 SC13-53- 1DDC. U.S. Government. Bored observation water-table well in alluvium. Diameter, 1.25 in. Depth, 8 ft. MP, 1.0 ft, above lsd. Altitude of land surface, 4,720 ft. Records available: 1959-77, 1979-84.

Highest water level, 3.5 ft, below lsd, Apr. 4, 1960; lowest water level, 5.28 ft, below lsd, Mar. 2, 1977.

May. 17, 1984 4.19 ft

LOGAN COUNTY

404256103064401 SB 9-51-31BBB. Frank Manuello. Drilled irrigation water-table well in alluvium. Diameter unknown. Depth, 106 ft. MP, 1.0 ft, above lsd. Altitude of land surface, 3,865 ft. Records available: 1947-84.

Highest water level, 2.89 ft below lsd, Oct. 6, 1947; lowest water level, 7.16 ft, below lsd, Jan. 10, 1975.

Mar. 27, 1984 4.93 ft

405209102481700 SB10-49- 2CBC. G. E. Henery. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 32 ft. MP, 1.50 ft above lsd. Altitude of land surface, 3,711 ft. Records available: 1947-79, 1982-83.

Highest water level, 3.95 ft, below lsd, Apr. 7, 1958; lowest water level, 9.03 ft below lsd, Nov. 6, 1964.

1984, not measured

MORGAN COUNTY

401452103480200 SB 3-57- 6DCC. City of Fort Morgan. Dug and drilled observation water-table well in alluvium. Diameter, 12 in. Depth, 180 ft. MP, 5.0 ft below lsd. Altitude of land surface, 4,325.6 ft. Records available: 1940-84.

Highest water level, 39.88 ft, below lsd, Jan. 20-21, 1955; lowest water level, 56.76 ft, below lsd, Sept. 5, 1965.

Mar. 29, 1984 50.40 ft

401424103505200 SB 3-58-11BCC. Alex Stark. Drilled irrigation water-table well in alluvium. Diameter, 16 in. Depth, 145 ft. MP, 2.40 ft, above lsd. Altitude of land surface, 4,366.2 ft. Records available: 1939-65, 1967, 1970-79, 1982-84

Highest water level, 51.85 ft, below lsd, Nov. 19, 1942; lowest water level, 69.87 ft, below lsd, Nov. 5, 1964.

Mar. 29, 1984 61.67 ft

401214104053401 SB 3-60-22CCC. B. A. Holden. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 120 ft. MP, 0.20 ft, above lsd. Altitude of land surface, 4,568.4 ft. Records available: 1936-84.

Highest water level, 49.44 ft, below lsd, Apr. 11, 1938; lowest water level, 103.83 ft, below lsd, Mar. 25, 1980.

Mar. 29, 1984 99.78 ft

401915103321100 SB 4-55- 9DCC. Rudolph and Schooley. Drilled irrigation water-table well in alluvium. Diameter, 14 in. Depth, 88 ft. MP, 2.0 ft, above lsd. Altitude of land surface, 4,175.2 ft. Records available: 1930, 1932-79, 1982-84.

Highest water level, 14.75 ft, below lsd, Oct. 19, 1949; lowest water level, 25.76 ft, below lsd, Mar. 11, 1969.

Mar. 28, 1984 23.19 ft

MORGAN COUNTY--Continued

402113103580300

SB 5-59-34CAD. G. Williams. Dug domestic and stock water-table well in alluvium. Diameter, 36 in. Depth, 20 ft. MP, 2.20 ft, above lsd. Altitude of land surface, 4,362 ft, above msl. Records available: 1947-84.

Highest water level, 7.16 ft, below lsd, Sept. 9, 1948; lowest water level, 16.72 ft, below lsd, Apr. 7, 1956.

Mar. 28, 1984 17.09 ft

OTERO COUNTY

380706103534200

SC22-58-21DAA. C. Meyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 56 ft. MP, 1.90 ft, above lsd. Altitude of land surface, 4,282 ft. Records available: 1928-31, 1933-84.

Highest water level, 25.54 ft, below lsd, Mar. 28, 1955; lowest water level, 36.61 ft, below lsd, Mar. 6, 1979.

Mar. 21, 1984 30.87 ft

380334103434700

SC23-57-12DAD. American Crystal Sugar Co. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 27 ft. MP, 2.00 ft, above lsd. Altitude of land surface, 4,186 ft. Records available: 1944-78, 1980-84.

Highest water level, 8.87 ft, below lsd, Dec. 4, 1946; lowest water level, 15.78 ft, below lsd, Nov. 27, 1956.

Mar. 13, 1984 12.40 ft

PHILLIPS COUNTY

403230102070901

SB 7-43-35ABB2. Rosa Morris. Drilled irrigation water-table well in Ogallala Formation. Diameter, 16 in. Depth, 300 ft. MP, 0.70 ft, above lsd. Altitude of land surface, 3,601 ft. Records available: 1976-84.

Highest water level, 46.06 ft, below lsd, Feb. 20, 1974; lowest water level, 60.91 ft, below lsd, Dec. 29, 1981.

Jan. 9, 1984 61.65 ft

PROWERS COUNTY

380532102311600

SC22-45-31-CBB. U.S. Geological Survey. Driven observation water-table well in alluvium. Diameter, 1.25 in. Depth, 11 ft. MP, 3.5 ft, above lsd. Altitude of land surface, 3,567 ft. Records available: 1955-84.

Highest water level, 0.10 ft below lsd, Aug. 24, 1967; lowest water level, 6.00 ft below lsd, May 3, 1965.

Jan. 4, 1984	5.74 ft
Mar. 5, 1984	5.54 ft
May 16, 1984	5.18 ft
July 12, 1984	5.08 ft
Oct. 4, 1984	4.85 ft
Nov. 8, 1984	4.48 ft

PUEBLO COUNTY

381340104205601

SC21-62- 9CCC. Susie C. Potestio. Drilled irrigation water-table well in alluvium. Diameter, 15 in. Depth, 28 ft. MP, 1.1 ft, above lsd. Altitude of land surface, 4,567 ft. Records available: 1929, 1934-75, 1980-84.

Highest water level, 13.90 ft, below lsd, Nov. 16, 1965; lowest water level, 20.55 ft, below lsd, July 28, 1981.

Mar. 7, 1984 14.91 ft

381443104320701

SC21-64- 3DAC. Joseph Thomas. Drilled irrigation water-table well in alluvium. Diameter, 15 in. Depth, 35 ft. MP, 2.10 ft, above lsd. Altitude of land surface, 4,679 ft. Records available: 1934-75, 1979, 1982.

Highest water level, 12.20 ft, below lsd, Nov. 11, 1942; lowest water level, 27.50 ft, below lsd, Mar. 14, 1977.

1984, not measured

PUEBLO COUNTY--Continued

380817104043400 SC22-60-13BBC. C. J. Sindig. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 39 ft. MP, 1.0 ft, above lsd. Altitude of land surface, 4,375 ft. Records available: 1952-84.

Highest water level, 27.60 ft, below lsd, Mar. 10, 1983; lowest water level, 36.16 ft, below lsd, Nov. 28, 1956.

Mar. 7, 1984 25.50 ft

SEDGWICK COUNTY

404741102030500 SB10-42-32DDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 207 ft. MP, 2.80 ft, above lsd. Altitude of land surface, 3,609.2 ft. Records available: 1952-84.

Highest water level, 176.34 ft, below lsd, Jan. 16, 1969; lowest water level, 191.50 ft, below lsd. Jan. 1, 1984.

Jan. 1, 1984 191.50 ft

405805102235100 SB11-45- 5BBA. F. J. Hilderman. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 52 ft. MP, 0.50 ft, above lsd. Altitude of land surface, 3,540 ft. Records available: 1947-79, 1982-84.

Highest water level, 11.23 ft, below lsd, Oct. 7, 1949; lowest water level, 20.70 ft, below lsd, Jan. 6, 1975.

Mar. 27, 1984 14.86 ft

405435102364300 SB11-47-28BBB. James Jankovsky. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 52 ft. MP, 0.50 ft, above lsd. Altitude of land surface, 3,624 ft. Records available: 1948-79, 1982-84.

Highest water level, 2.51 ft below lsd, June 24, 1948; lowest water level, 5.61 ft below lsd, Oct. 17, 1954.

Mar. 27, 1984 3.83 ft

WASHINGTON COUNTY

394038102481800 SC 4-49-25ADC1. Cecil Williams. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 17 ft. MP, 0.20 ft, above lsd. Altitude of land surface, 4,350 ft. Records available: 1950-69, 1971-72, 1975-79, 1982-84.

Highest water level, 7.42 ft below lsd, Aug. 6, 1951; lowest water level, 16.30 ft below lsd, Jan. 4, 1979.

Jan. 21, 1984 14.56 ft

393902102561800 SC 5-50- 2AAB. Lloyd McIrwin. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 54 ft. MP, 2.00 ft, above lsd. Altitude of land surface, 4,514.6 ft. Records available: 1950-67, 1969-75, 1982-84.

Highest water level, 16.44 ft, below lsd, Nov. 8, 1961; lowest water level, 22.65 ft, below lsd, July 23, 1954.

Jan. 21, 1984 20.27 ft

WELD COUNTY

400306104154701 SB 1-62-13ADD. C. M. Roark. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 76 ft. MP, 3.00 ft, above lsd. Altitude of land surface, 4,824.1 ft. Records available: 1947-75, 1981, 1984.

Highest water level, 18.29 ft, below lsd, Oct. 16, 1952; lowest water level, 53.20 ft, below lsd, Mar. 12, 1981.

May. 18, 1984 47.27 ft

WELD COUNTY--Continued

400427104244801 SB 1-63- 2CCC. D. Trupp. Drilled irrigation water-table well in alluvium. Diameter, 20 in. Depth, 96 ft. MP, 0.30 ft, above lsd. Altitude of land surface, 4,822 ft. Records available: 1944-56, 1958-84.

Highest water level, 51.70 ft below lsd, May 1, 1950; lowest water level, 75.90 ft below lsd, Nov. 13, 1959.

Apr. 6, 1984 60.15 ft

400125104370001 SB 1-65-25CCD1. Fred Haffner, Sr. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 69 ft. MP, 0.60 ft, above lsd. Altitude of land surface, 5,044 ft. Records available: 1940-83.

Highest water level, 30.29 ft, below lsd, Apr. 12, 1950; lowest water level, 45.70 ft, below lsd, Mar. 2, 1979.

1984, not measured

400129104483800 SB 1-66-30ADA. G. J. Mancini. Dug irrigation water-table well in alluvium. Diameter, 8 ft. Depth, 31 ft. MP, 1.15 ft, above lsd. Altitude of land surface, 4,953 ft. Records available: 1929-75, 1978-84.

Highest water level, 10.29 ft, below lsd, Oct. 12, 1933; lowest water level, 21.16 ft, below lsd, Mar. 11, 1982.

Apr. 3, 1984 19.24 ft

401727104133000 SB 4-61-28BBB. K. Mori. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 100 ft. MP, 0.80 ft, above lsd. Altitude of land surface, 4,482 ft. Records available: 1947-79, 1982-84.

Highest water level, 21.60 ft, below lsd, Oct. 9, 1947; lowest water level, 40.60 ft, below lsd, Mar. 1, 1976.

Apr. 6, 1984 34.20 ft

401912104313700 SB 4-64-10DDD. T. E. Dwyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 60 ft. MP, 0.60 ft, above lsd. Altitude of land surface, 4,635 ft. Records available: 1940-84.

Highest water level, 6.43 ft below lsd, Nov. 9, 1949; lowest water level, 23.64 ft below lsd, Nov. 13, 1956.

Apr. 13, 1984 10.37 ft

402753104280901 SB6-63-29BBB. H. L. Wells. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 37 ft. MP, 1.80 ft, above lsd. Altitude of land surface, 4,655 ft. Records available: 1932-79, 1982-84.

Highest water level, 7.19 ft, below lsd, Aug. 11, 1932; lowest water level, 22.85 ft, below lsd, Nov. 12, 1956.

Apr. 4, 1984 8.09 ft

402930104414301 SB 6-65-17BBC. H. W. Farr. Drilled irrigation water-table well in alluvium. Diameter, 18 in. Depth, 65 ft. MP, 0.80 ft, above lsd. Altitude of land surface, 4,761.9 ft. Records available: 1932-76, 1982-84.

Highest water level, 21.22 ft, below lsd, Aug. 1, 1932; lowest water level, 41.36 ft, below lsd, Nov. 12, 1956.

Apr. 4, 1984 24.48 ft

403032104510201 SB 6-67-12BBB. Fred Felte. Drilled irrigation water-table well in alluvium. Diameter, 24 in. Depth, 22 ft. MP, 0.50 ft, above lsd. Altitude of land surface, 4,859 ft. Records available: 1941-75, 1982-83.

Highest water level, 5.45 ft, below lsd, Mar. 21, 1962; lowest water level, 13.30 ft, below lsd, Nov. 12, 1956.

1984, not measured

403454104403701 SB 7-65-16BBB. K. Akahoshi. Drilled irrigation water-table well in alluvium. Diameter, 4 ft. Depth, 18 ft. MP, 2.70 ft, above lsd. Altitude of land surface, 4,875.1 ft. Records available: 1942-48, 1950-79, 1982-84.

Highest water level, 4.09 ft below lsd, Oct. 28, 1959; lowest water level, 7.42 ft below lsd, Apr. 29, 1946.

Mar. 3, 1984 4.35 ft

WELD COUNTY--Continued

403914104451801 SB 8-66-22AAA. Troy Jones. Dug irrigation water-table well in alluvium. Diameter, 12 ft. Depth, 31 ft. MP, 2.1 ft, above lsd. Altitude of land surface, 5,073.7 ft. Records available: 1929-84.

Highest water level, 16.20 ft, below lsd, Jan. 8, 1947; lowest water level, 22.68 ft, below lsd, Nov. 22, 1954.

Mar. 29, 1984	19.39 ft

YUMA COUNTY

401105102061101 SB 3-42-31BDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1.25 in. Depth, 92 ft. MP, 0.5 ft above lsd. Altitude of land surface, 3,615.8 ft. Records available: 1952-84.

Highest water level, 21.25 ft, below lsd, Aug. 14, 1952; lowest water level, 48.52 ft, below lsd, Jan. 11, 1981.

Jan. 24, 1984	44.86 ft

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons